Lectures

ON THE

DIAGNOSIS AND TREATMENT

OF THE VARIOUS FORMS OF

PARALYTIC, CONVULSIVE, AND MENTAL AFFECTIONS,

CONSIDERED AS EFFECTS OF MORBID ALTERATIONS OF THE BLOOD, OR OF THE BRAIN OR OTHER ORGANS.

BEING A COMBINATION OF THE

Gulstonian Lectures, delivered at the Royal College of Physicians of London in February, 1861,

AND OF

Clinical Lectures delivered at the National Hospital for the Paralysed and Epileptic,

BY C. E. BROWN-SÉQUARD, M.D., F.R.S.,

PHYSICIAN TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, ETC.

LECTURE IV.—PART I.

ON THE SYMPTOMS AND DIAGNOSIS OF WOUNDS, SOFTENING, AND ABSCESS OF THE CEREBELLUM.

Criticism of the facts brought forward by Gall and others to show that an injury to the cerebellum causes atrophy of the sexual organs and a loss of sexual desires—Case of injury to the cerebellum without any impairment of the power of walking—Wounds of the cerebellum are not characterized by special symptoms.

GENTLEMEN,—I need not say that wounds of the cerebellum may be followed by all the symptoms of wounds of the head which depend upon the injury and inflammation of the scalp and the cerebral meninges, and, also, upon an effusion of blood. It is yet a question whether any special symptom might indicate that the cerebellum is wounded. According to the facts on record on this point, I am inclined to think that there is no special symptom, excepting, perhaps, a loss of sight in one or in both eyes. It is known, however, that Gall has brought forward many facts which, to him, seemed to show the truth of his theory as regards the relation between the cerebellum and the genital organs. I think that rarely have more facts been brought forward in support of an erroneous theory. It is, therefore, important to scrutinize these facts, and to ascertain what real value they have in support of the theory they are said to prove.

The first case mentioned by Gall,* is that of a man, who, after a wound to the back part of the head, at first had disordered erections, after which he fell into a condition of complete loss of sexual power, which, however, he recovered after six months.

The second case† is that of a coachman, who, after having been a "vaillant champion au champ d'amour," hurt the back part of his head against a beam. His wife complained to Gall that since the accident, the virile power of her husband had become weaker and weaker, and at last had ceased altogether.

The third case‡ is that of a soldier, who was dismissed from service on account of a general debility, and particularly of the complete loss of action of the genital organs. He had been wounded at the back of the head by a fragment of shell in Egypt. He was then eighteen years old. After three or four months the genital organs became atrophied, and he lost with their functions the power of erection, and the desire of sexual intercourse. He remained thin, feeble, and pale; he had no beard, and spoke like a woman. He was thirty-two years of age when he was dismissed from the army, and he still seemed as if he were eighteen.

The fourth case§ is that of a soldier who received a sabre-cut at the battle of Wagram. When Larrey saw him he had a cicatrix across the occipital protuberance. Till he was wounded this man used to have intercourse with women. Since the injury he was completely deprived of erectile power, and lost all sexual desire.

The fifth case* is also that of a soldier, who received a gunshot wound, dividing the muscles of the nape of the neck at their insertion on the occipital. The patient at first complained of much pain in the back of the head, of heaviness, and numbness in the lower limbs. His sight and hearing became so weak that he could hardly distinguish even large objects, and he could not hear the most acute sounds. His testicles were soon atrophied; the penis also became smaller and remained inactive. However, the wound healed, and the man was *cured* before the fiftieth day.

I can hardly understand that the above facts have been brought forward to prove that injuries of the cerebellum have the power of producing an atrophy of the sexual organs. Nothing in those cases shows that the cerebellum was injured. Only one case is mentioned by Gall in which there was really some injury to the cerebellum. It is that of a soldier† who is said to have been very ardent in his love for women. This man received a sabre-wound which cut away the occipital protuberance, and laid bare a part of the right lobe of the cerebellum. Within only a few days after the accident, the man lost his sight and hearing on the right side. He felt acute pains along the spine, and a kind of formication in the testicles, which became smaller, and in a fortnight were reduced (especially the left one) to the size of a garden-bean. After some time symptoms of inflammation appeared, and increased rapidly. The pains in the head and in the spine made him shriek loudly. He always remained lying in his bed on the right side. The least movement gave him convulsions, and if he rose to take medicine or food he fell into a frightful syncope. Thirty-eight days after the wound he died in a tetanic state. The right lobe of the cerebellum was contracted (*s'était affaissé*), of a yellow colour, without suppuration or effusion; the medulla oblongata and the spinal cord were of a dirty white, harder than usual, and one-fourth smaller. Their nerves also seemed atrophied.

The above case, the only one of injury to the cerebellum reported by Dr. Gall, cannot in the least be regarded as favourable to his views, as it is a case of cerebro-spinal inflammation.

The believers in the views of Gall do not seem to have brought forward better proofs than he had. In a paper on the Functions of the Cerebellum,‡ Dr. Fisher relates a case of a man who, in a railway collision, was thrown out of a car after having received a contusion of the back of the head and neck. He was found insensible, and when he recovered he could not move, and had much pain in the nape of the neck, which was swollen. After a fortnight he was able to get out of bed and to walk, but his eyesight was altered in such a way that things which were far away appeared to be near, the streets seeming extremely long; and when he talked with someone, he had the sensation that he had to look down, and that he was much taller. Between the fourth and fifth weeks he discovered that he had lost sexual desires, and that the sight of a woman produced no effect upon him. Gradually his bladder recovered power and the aberration of sight diminished, but the genital instinct remained inactive. His right arm, which had lost the power of feeling, was nearly in the same condition as immediately after the accident; and his memory, his courage, and his resolution were also much diminished. However, all these symptoms ceased, and six months after the accident he recovered all his physical and moral faculties.

I do not see how a fact like the preceding, in which there was *a special alteration of sight*, such as is never observed in cases of disease of the cerebellum, and also *loss of feeling of one arm*, with *diminution of memory, courage, and resolution*, and *paralysis of the bladder*, can have been considered as an argument in favour of the views of Gall. Nothing in the case just detailed proves that the cerebellum was injured, and most of the symptoms show that the cerebrum was.

In cases of wound of the cerebellum published before Gall had made known his views, we find no mention of the state of the genital organs. This, however, would be no positive proof that there was no paralysis or atrophy of these organs, as the writers may have neglected to mention these symptoms. I must say that if there is no proof of the correctness of the view of Gall, there is also no case, that I know of, of injury to the cerebellum in which, after a sufficient duration of life, it is

* Sur les Fonctions du Cerveau, &c., vol. iii., p. 901. 8vo. Paris, 1823.
† Loc. cit., p. 301.
‡ Loc. cit., p. 302.
§ Loc. cit., p. 303.

* Loc. cit., p. 303.
† Loc. cit., p. 304.
‡ The American Journal of Medical Science, Feb. 1859.

stated that the patient had no alteration in the genital organs and in their functions. However, from an examination of the facts brought forward by Gall and others, it results that we cannot consider an alteration of the sexual organs as a symptom of injury to the cerebellum.

Is a disorder in voluntary movements a symptom of injury to the cerebellum? That there is no such symptom, at least when this nervous centre is wounded in only one of its lobes, is clearly proved by the following case, which I owe to Mr. Brownfield, house-surgeon to the Poplar Hospital, who has kindly communicated it to me through my friend, Dr. J. Hughlings Jackson.

CASE 1.—*Laceration of the cerebellum; no alteration in the power of walking; no excitation of the genital organs.*—John S——, a stout, well-made man, aged thirty-five, was admitted into the Poplar Hospital on June 7th, 1856. He had fallen into the hold of a ship, a distance of about sixteen feet. He fell so that the back of his head struck against a railway bar. The immediate effect was a slight stunning, but so slight that he was able to walk out of the ship's hold on to the deck before a surgeon, who was at once sent for, could arrive. The surgeon found him to be apparently so little hurt, that he said, "Oh! you are all right. Go home and rest yourself." The patient's employer, however, persuaded the man to go to the hospital. He walked there without assistance, the distance being about one-third of a mile, and arrived at nine o'clock in the morning. Mr. Brownfield had some difficulty in persuading the man to stay, but by telling him that although he did not appear much hurt then, he might suffer afterwards, he was induced to stop. He then took leave of his employer, and walked upstairs alone to bed. A purgative and a saline mixture were ordered for him, and he was directed to keep quiet. On examining the head there was nothing more than a little tumefaction of the scalp at the back of the head. At one o'clock Mr. Brownfield saw him; he then said that he was quite well, and appeared so. He continued in the same condition until about seven at night. His respiration then appeared quickened, and his pulse began to increase in frequency and in force. At ten P.M. he was apparently moribund; he was profoundly insensible; his breathing was stertorous; pulse full and frequent; countenance livid; perspiration profuse. He was then bled, and regained sensibility so perfectly as to be able to tell the place where he lived. He remained in this improved condition until about midnight, when the symptoms mentioned returned. He died about two hours later.

Post-mortem examination.—There were marks of the injury upon the scalp, but there was not the least sign of injury to the bones of the head anywhere. The skull-cap was very thick. Under the dura mater, on the surface of the left hemisphere, blood was found effused, and was traced forwards and then downwards around the anterior lobe, and then backwards along the base of the skull to a laceration of the cerebellum. This laceration was of the left lobe, on its inferior and posterior surface. It was vertical, an inch and a half in length, and was situated in the lobe, quite away from the pons or crus cerebelli. It was half an inch deep. The sinuses, nerves, &c., were all intact. It was quite clear that the blood had escaped from the rent in the cerebellum, and had then passed forwards along the base of the skull, then upwards round the anterior part of the hemisphere, and then on to the surface. It did not, however, extend far back, not near to the site of the external injury.

In the above case no change in the state of the genital organs has been noted.*

In his most valuable work on the injuries of the head, Méhée de la Touche† states that there is a special symptom which indicates surely that the cerebellum is wounded—viz., a bending of the head towards the side of the body corresponding to the side of the injury in the cerebellum. I will show in another lecture, that this symptom belongs to injuries of the crura uniting the cerebellum to the neighbouring parts of the encephalon, and not to injuries of the cerebellum itself.

After an attentive study of all the cases I know of injury to the cerebellum, I find no symptom that can serve to show that this organ is wounded, with the exception of one which has been noticed in two or three instances—namely, loss of sight. I will discuss at length, in another lecture, the signification of this symptom, which, I ought to say, is not so frequent in cases of wound of the cerebellum as it is in some other affections of this organ.

* In a letter to Dr. Jackson, Mr. Brownfield writes that "there were no symptoms of uneasiness or otherwise of the genital organs."

† Traité des Lésions de la Tête par Contrecoup, p. 101. 1774.

ON THE TREATMENT OF TUBERCULAR HÆMOPTYSIS.*

BY WILLIAM BRINTON, M.D.,
PHYSICIAN TO ST. THOMAS'S HOSPITAL.

IN speaking of the treatment of phthisical hæmoptysis I shall try to be explicit. For I do not know any malady in which the responsibility of the physician is more acutely felt; and none, therefore, in which you ought to be more thoroughly prepared to act, and act decidedly, on the well-grounded convictions acquired beforehand by careful study. Cases of hæmoptysis are, indeed, sometimes spectacles of the most tragic kind. The horror of the patient, who sees his very life gushing forth from its source; the alarm and anxiety of his friends; the imminent peril of the moment; and the scarcely inferior peril of the protracted illness which frequently follows a copious hæmorrhage of this kind, even if itself be arrested—all these circumstances (in speaking of which there come before me some scenes of this kind such as I shall never forget) urge me to give you, without qualification, the results of my own experience. Any opinions I have formed will, I hope, not be accepted by you without due consideration, much less allowed to overbear those arrived at by other teachers, and especially by my colleagues, on such points. But when I say that, looking back, I can heartily wish that I had had similar advice given me as a student, you will judge that I regard it as important.

Of course pulmonary hæmorrhage has the usual long list of specifics, each of which, in the eyes of its partizans, is so efficacious that one can hardly avoid wondering anybody should be so foolish as to die of hæmoptysis at all. Alum, turpentine, mercury, the mineral acids, acetate of lead, sulphate of copper, tannic acid and a host of analogous astringents, ipecacuan, tartar emetic, the external application of ice, figure amongst the favourite remedies of this kind. The variations of diet have been scarcely less striking than those of drugs: the patient who would have been nearly starved twenty years ago to favour coagulation of the blood in the ruptured vessels, being now sometimes crammed with food, and drenched with stimulants, at frequent intervals, in order to "keep up his strength."

Warned by such discrepancies, I think we are justified in regarding as inconclusive what are often termed the "teachings of experience"—namely, the mere events which follow the adoption of this or that drug or dietary in the treatment of the malady. Here, as elsewhere in the study of therapeutics, it is our first duty to check the uncertainty or bias which must sometimes beset the conclusions of the most judicial intellect, by a study of the nature and history of the disease, and by the physiological action of the remedy. What *is* hæmoptysis, on the one hand? What does the particular drug do to the healthy body, on the other? Unless we can at least partially answer the first question, it is difficult to see how we can conclude any remedy really useful. Unless you can answer the second, and point to at least an analogy between the effects of the drug in health and in disease, it is nothing short of a very complete and large account of the natural course of the malady that would enable us to accept any recovery as a cure. True it is that quinine cures most forms of ague, and mercury some forms of syphilis, by agencies which are quite inexplicable from the mere physiological effects of either drug respectively. But here our knowledge of the course of the two maladies, unmodified by their respective specifics, proves the reality of the cure. It is not so much a multiplication of coincidences, as an asseveration of cause and effect, which is thus afforded us.

Looking back to the variations of hæmoptysis already alluded to, and eliminating the casual bleedings of pleurisy, and the more essential, but dilute, hæmorrhages of pneumonia, you will remember that we noticed the hæmoptysis of pulmonary tubercle as presenting itself in three forms of very different frequency and gravity. The afflux, or active congestion, of the first stage of tubercular deposit, and the obstruction and erosion of the second stage, affect chiefly the smaller vessels of the diseased organ. The large ulceration of the third stage occasionally lays open a bloodvessel of considerable magnitude. The first two are of frequent occurrence; indeed, the second is, in greater or less extent, almost a necessary incident of the malady. The latter is fortunately rare.

* From a Clinical Lecture at St. Thomas's Hospital.

Now, of these two commoner varieties of tubercular hæmoptysis, it may be unhesitatingly affirmed, that in a very large per-centage of their cases the bleeding would cease spontaneously. Indeed, inquiry amongst the poorer classes who form the out-patients of our hospitals shows that hæmorrhage of this kind commonly ceases in a day or two: not only without medical advice, but often in defiance of the want of that perfect rest and unstimulating diet which, apart from drugs, constitute the best means of favouring its arrest. And I need hardly say that, in such a process, Nature is only stanching an internal bleeding by the same means which she ordinarily employs to arrest an external one; means which, though in the case of these pulmonary vessels they have to fight against additional obstacles in the shape of the alternate suction and compression of breathing, and the agitation of cardiac movement, are yet in the main sufficient.

Hence to assert that these frequent and scanty hæmorrhages generally cease after the administration of any one of the above drugs is to state a fact which, the moment it is made to sustain an assertion of their specific operancy as styptics, may be challenged as an instance of the fallacy "*post hoc, ergo propter hoc*;" for the fact is utterly insufficient to sustain any such conclusion. The bleeding may have ceased spontaneously; a recovery which, supposing the instincts of the patient have been allowed full play in the matter of rest and diet, is even additionally explicable. Strictly speaking, the mere coincidence scarcely entitles us to affirm more of styptic power in the drug than if the bloodvessels concerned had been those of a cut finger.

In all cases of hæmoptysis, the first indication of treatment is suggested by the pathology of these, and indeed most other, morbid hæmorrhages. That the bleeding is generally preceded and accompanied by great congestion of the bloodvessels nearest the lesion is a fact about which there can be no doubt whatever. And that the removal of this condition can often be effected by smart aperients is another fact which may be as unhesitatingly asserted. Nowhere are these statements better verified than in the digestive canal; where, for example, you may sometimes see in the submucous areolar tissue that the nodule of deposit which has excited a copious hæmorrhage, is surrounded by an inch or two of deep velvety congestion, with a well-defined margin towards the neighbouring healthy structures; and where the virtues of drastic purgatives in melæna constitute an experience as old as the days of Hippocrates. And of all purgatives which one may give with this purpose, the old-fashioned dose of blue-pill or calomel, followed by a black draught, seems really the quickest and most efficacious. Under all ordinary circumstances its administration, and, if needful, repetition, should be a prominent feature of the treatment.

Then as to the drugs for checking hæmorrhage, by their astringency or otherwise. There seems to be a kind of notion in the minds of some therapeutical writers, that such drugs as turpentine, alum, gallic acid, acetate of lead, sesquichloride of iron, &c. &c., when taken into the stomach, are received into the blood in quantities sufficient to communicate to this fluid those styptic properties which they undoubtedly possess when applied to an external wound, or to a bleeding stomach, or perhaps (through the urine) to a bleeding bladder. But I know of nothing to confirm such a notion. And I think that those who would look the facts of therapeutics sturdily in the face (which, not wishing to die a homœopath, I intend to do), would scarcely think twice about the matter. At any rate experiment would soon afford some analogical answer. Stir up ten grains of gallic acid, or ten minims of tincture of sesquichloride of iron, in ten or twenty pints of blood, and I think the resulting solution would be a styptic of a somewhat Hahnemannic degree of diluteness; not nearly so potent, one may anticipate, as the compound tincture of benzoin which, forty years ago, was the favourite application of some old-fashioned country surgeons to stanch the bleeding of a superficial wound, and which, in its turn, modern surgeons have practically superseded by a little patience and cold water.

Of other remedies for hæmoptysis one may speak more respectfully, though with some qualifications. Ice, for example, seems occasionally of service. But the internal congestion invariably produced by great external cold suggests that, save where the source of the hæmorrhage is near enough to the surface to be directly affected by it, its benefits may be more than questionable. And of ipecacuan, which many excellent authorities think highly of, in small and frequent doses (a grain every ten or fifteen minutes), I can not only say that I have known its use followed by great exhaustion and nausea, and a very protracted convalescence, but (what is more to the purpose) that over and over again I have known it utterly fail in any degree to moderate such a hæmorrhage.

In short, all else that I have to say of such remedies might almost be summed up in the statement, that it is in the terrible hæmorrhage of larger eroded vessels, and therefore of what is often advanced phthisis, that we have the most searching test of the value of any drug of this kind. Presuming we have such a means, we must very frequently use it. For it is often impossible to tell beforehand whether a slight oozing is not the commencement of a more considerable hæmorrhage, such as (directly or indirectly) endangers life. And I believe that we have such a remedy, for the majority of patients, in *digitalis*.

The grounds for this strong personal conviction I find chiefly in the fact, that I have repeatedly seen profuse and alarming hæmoptysis, which had resisted many other means of treatment, including a most judicious diet and all the other drugs above enumerated, yield to this active remedy, given so as to produce its well-known specific effects on the pulse. And not only so, but, in several cases, the interruption of the drug seems to have permitted the return of the hæmorrhage, to be again arrested by the resumption of the digitalis. Our patient in bed No. 9 of Jacob's ward so far illustrates this point as that, thrice over, the gradual disuse of the digitalis, at intervals of two and three weeks from the previous cessation of the hæmoptysis under the use of the drug, has been followed by fresh attacks. And the very same physiological effects which confirm the efficacy of digitalis may suggest the details and qualifications of its use. Pray remember that it is too much of an edged tool to be carelessly handled; and hence that, if you cannot or will not take the trouble to watch over its administration, you had best not give it at all. From thirty to ninety minims of the officinal tincture daily, in four or six doses, is as much as is generally requisite; and (as has been pointed out by Sir Henry Holland in that chapter of his classical work devoted to the consideration of this drug) it is often not the robust strong man who bears or demands the largest dose. Keep the patient quiet, and in the recumbent posture, an attitude for which the drug is a double argument in this malady. Judge, by repeated inquiry, how far, or how quickly, the digitalis is acting on the pulse; and, as a rule, reduce the dose as soon as the pulse has dropped to the slow rate (30 to 50 or 60 per minute), which is the usual result of its action both in health and in disease. Lastly, for those who like polypharmacy, the drug combines well enough with dilute sulphuric acid during the attack, and with sesquichloride of iron during the convalescence, without substantial detriment to its own much greater virtues.

Brook-street, Grosvenor-square, Nov. 1861.

ON THE

ALKALINE HYPOPHOSPHITES, AND THEIR MEDICINAL PROPERTIES.

BY JOHN TAYLOR, ESQ., M.R.C.S. ENG.,
Liverpool.

FROM the very discrepant reports that periodically appear in medical literature respecting the therapeutic value of these salts, I have been led to investigate the subject, in order to ascertain, if possible, on which side truth is to be found; for while one party, with Dr. Churchill at its head, extols them beyond all customary bounds of laudation, others condemn them as utterly useless. Perceiving the wide difference in quantity administered as a dose by these eminent experimenters, it appeared probable they had not used the same chemical substance, Dr. Churchill's usual dose being five grains three times a day, with most marvellous effect; while others, some of whom were attached to Consumption Hospitals, have given one scruple to half a drachm, and in some cases one drachm, three times a day for many weeks, without any beneficial effect. I could not view with indifference the very opposite results obtained by these equally eminent men from premisses apparently the same, especially as we know that a sense of responsibility constrains all who are placed in high position for investigating medical facts with a view to publication, to act with enlarged, comprehensive, and truly philosophic mind, the results being published and circulated through every intelligent portion of the world, with a mission either for good or evil. With a feeling of regret that the already published reports might give point to the taunting proverb, "See how

doctors differ," I entered deeply into the investigation, preparing the hypophosphites for myself, when I soon found that the diversity of opinion respecting their merits mainly depended on the constitution of the salt used—i. e., whether a hypophosphite, or a phosphite, or a phosphate, more or less combined with a carbonate—the article of commerce being a combination of all these. The first startling fact I observed was, that not more than two grains of a pure hypophosphite of potash or soda can be taken for a dose without exciting nausea and a painful feeling within the anterior part of the thorax, much increased by a frequent repetition of the dose; nor is it surprising that such a feeling should ensue when it is considered that a hypophosphite is the most soluble oxide of phosphorus in the animal secretions, and is at once admitted into the venous circulation. The primitive mode of giving phosphorus to stimulate nervous power was in solution with oil or ether; but these loose combinations were readily decomposed by emulsion formed with the oil and the separate absorption of the ether, leaving the phosphorus to act corrosively on the stomach. The hypophosphite, therefore, is the most preferable mode of administration, and is superior to the phosphite, which is only partially soluble without the aid of lactic and carbonic acids; and to the phosphate, which is still less soluble even with that aid, and combined with glucose or sugar, by which means the phosphites and phosphates in food and medicine are rendered assimilable.

The theory of Dr. Churchill and his supporters (as briefly stated in "Braithwaite's Retrospect," vols. xxxvii. and xli., abridged from THE LANCET and *Medical Times*) is that the *cause* of phthisis is the unrepaired loss of phosphorus from the blood and pulmonary tissues, and that the timely introduction of this element into the vital organization is the panacea for the direful malady. "The physiological effects of the soda, lime, potash, and ammonia hypophosphites are twofold," says Dr. Churchill: "they increase nervous force, and are the most powerful hæmatogens; possessing all the therapeutic properties of phosphorus, without the danger formerly attending its use." And, further, he adds, "I regard them as prophylactic and curative in every stage of phthisis;" and "I know they will prove not only as sure a remedy in consumption as quinine is in intermittent fever, but also as effectual a preservative as vaccination in small-pox." Experience has not confirmed this extravagant encomium as respects the "*curative* in every stage;" the word *palliative* would be more in accordance with fact, when the remedy has been pure, and with auxiliary combinations. But in the earlier and middle stages, the guarded introduction of an alkaline hypophosphite into the blood produces a glowing influence,—as a respiratory excitant, expanding the chest; as a pyrogenic, increasing animal heat and nervous force, and removing erratic pains; and, as a hæmatogen, forming a nucleus for the rallying of red globules: it increases appetite and cheerfulness, and controls expectoration, night-sweat, and diarrhœa. These points I have repeatedly proved in a series of tabulated private cases, and from cases committed to my charge in the Liverpool Workhouse and Royal Infirmary. The degree of benefit derived from a hypophosphite in phthisis depends upon the skill with which the adjuvans and the corrigens are combined. Unguarded by a mild tonic, a carminative, a stimulant, or an anodyne, as the case may indicate, a genuine alkaline hypophosphite is repulsive to the nerves of the stomach, and the patient refuses to take a second dose, not of one drachm, but even of two grains. My favourite adjunct is compound tincture of gentian, with cinnamon water, and sometimes a little morphia, with the view of obtaining its quiet admission into the circulation, without which no good effect could be reasonably expected. In some cases of extreme debility from cavernous abscess and profuse expectoration, wherein ethers and opiates were barely retaining life, the superaddition of the hypophosphite of potash produced a magical effect, invigorating the muscles so that the chest could be fully expanded, and the lost power of progression was restored, the cough suppressed, sleep induced, and the expectoration much diminished. But this improvement was not steadily maintained unless the patient was able to procure, and made capable of digesting, sufficient nitrogenous and carbonaceous food containing a due proportion of phosphatic salts to repair the waste that had been so long enfeebling him. And I have frequently found, in the course of my investigations, that when once the vital powers had been aroused by a hypophosphite, the ingesta required to be much increased—in fact, proportionate with the increased secretions of the mucous membranes caused by the hypophosphite; otherwise gastric irritability ensued, with its sequelæ. This feature was particularly observable in the Workhouse Hospital, where the subjects of phthisis were chiefly the broken-down systems of the intemperate and the extremely poor. The disease seemed all the more rapidly to run its course to a fatal termination under the influence of the hypophosphite of potash, through inability to replace the organic particles lost in the course of the disease. In these special cases, a larger amount of alcoholic food, temporarily supplied, would enable the almost devitalized absorbents to accept phosphatic food; for, as Lehman observes, "the presence of phosphates and an excess of potash salts are the result of necessity in the tissues; and as all plastic secretions notably contain phosphates, the necessity for their reparation is evident, as they are required to supply the first basis of the new tissue."

In this hospital I met with some pleasing instances of the impulsive power of the hypophosphite of potash in renovating the vital powers of some bedridden women who were complaining of deep thoracic pains, shortness of breath, muscular and arthritic pains in the limbs, the result of excessive tea-drinking and the want of phosphatic food before entering the hospital. One mixture, containing half a drachm of the salt, with one ounce of compound tincture of gentian with cinnamon water and a little mucilage, relieved the pains, and gave the disposition to leave the bed and ask for more food. Some hospitals abound with cases of this description, set down as neuralgic and rheumatic, in which food is the proper cure; and an alkaline hypophosphite, scientifically administered, may prove the enabling means for assimilating that food, care being taken, when the capillaries have been excited by a hypophosphite, to follow on with such food as will supply the protein compounds, albumen, fibrin, and casein, with the mineral salts.

The controversy as to the merits of the alkaline hypophosphites has awakened the spirit of research. It has led me to the discovery of the aptitude of these salts for many morbid conditions to which they were previously thought inapplicable, and probably others are pursuing the same course of investigation—viz., proving facts in reference to their power in augmenting nervous force in the secerning vessels; in increasing the natural, and diminishing morbid secretions; allaying nervous irritation, and implanting the cementing principle which gives force to other elements in the blood that have become defective through the inordinate lapse of phosphates. Examples are to be found in gestation, prolonged lactation, dentition, some forms of dyspepsia, anæmia, catarrhal and leucorrhœal discharges, and in myalgia and the muscular pains simulating inflammation. But I shall defer the description of these therapeutic points until I have explained the chemical constitution of the hypophosphites.

Owing to the method of manufacture, as described in authoritative books and scientific periodicals, it is evident the product must be in great measure a compound of phosphite, PO_3, and a phosphate, PO_5, with some amount of carbonate, the two latter salts prevailing most in the hypophosphite of lime, from the well-known affinity of lime for carbonic acid; yet, strange to say, the other alkaline hypophosphites are directed to be prepared from this salt by double decomposition with their respective carbonates. Correspondence has been had with several manufacturing chemists, who admit this to be the practical mode of preparation: Phosphorus, one pound; calcis, four pounds; water, five pints—are gently boiled in an open pan until the phosphorus disappears. Now as phosphorus melts at 120° Fahr., boils at 250°, and volatilizes at intermediate temperatures, making the aqueous vapour luminous, and as phosphorus is more dense than the saline solution around it, and consequently remains at the bottom of the pan subjected to the greatest heat of an open fire, sand-bath, or hot hearth, sublimation of a portion of it must inevitably occur. Then as to the remainder, it is first rendered into P_2O; then into the hypophosphite, PO. In this condition it readily passes into a higher degree of oxygenation, and becomes a phosphite, PO_3, when surrounded by an alkaline solution under prolonged boiling. On further boiling and evaporation, the greater part is converted into a phosphate, PO_5. This last change is conformable with the chemical law affecting the sulphites also. Sulphate of magnesia is now made on the large scale simply by boiling a solution of the sulphite in the open air. Dulong, the celebrated chemist, states that when the hypophosphites in solution are boiled in contact with the atmosphere, they are converted into simple phosphates; and Rose, the equally eminent chemist, goes further in stating, that when they are boiled in a close vessel, they remain unaltered, provided no excess of alkali is present. From this statement it would appear that the first-formed portion of the hypophosphite is more difficult to preserve than virtue itself, for it must necessarily be surrounded by excess of alkali. And he further adds: "The conversion

into hydrogen gas and a residual *phosphate* is the quicker according to concentration and quantity." It will not now be difficult to understand why one practitioner makes two grains his maximum dose, another five grains, and another one drachm. I do not hesitate to affirm that one drachm of a *pure* hypophosphite of potash ($2HO, PO + KO + n$ Aq.) or soda ($2HO, PO + Na + n$ Aq.) taken at once will produce poisonous effects; and if so, the hospital reports already published of experiments with such large doses of the hypophosphites are altogether valueless.

In the preparation of a hypophosphite the chief points of attention are to keep the temperature below 220° and equally applied around the vessel, and to exclude the air. A water-bath, a steam-jacket, or an oven, answers well. For the exclusion of air, if the vessel be of the common oil-flask form, and the space between the fluid and the mouth be kept constantly filled with vapour, not only is the air excluded, but the issuing phosphuretted hydrogen does not explode within and fall back as phosphoric acid, to form an immediate phosphate. A still better method is to secure a funnel with a loosely-fitting marble, or other spherical body, in it, upon the top of the vessel. But when the operation is carried on a few days at the temperature of 100° to 150°, a stratum of oil of turpentine poured gently on the surface excludes the air, arrests the phosphuretted hydrogen without explosion, and forms a phosphuretted terebinthinate camphor, which imparts a somewhat disagreeable odour to the salt. I have not found the product less efficacious therapeutically. By whatever mode the hypophosphite is prepared, care should be taken in the evaporation to form a dry salt that the temperature of 140° be not exceeded. In one of my experiments in the formation of the hypophosphite of soda, the salt became intensely dried in the oven at about 240° Fahr. On removing it into a closely stoppered bottle, a lambent flame of non explosive phosphuretted hydrogen gas played over the dried salt for several hours, proving that the constitutional water of composition (for it cannot exist without two atoms of water) was decomposed, one portion of the phosphorus taking the oxygen to form phosphoric acid, the other taking the hydrogen, and forming the non-explosive hydrogen gas, H_3P, the explosive kind being H_2P_2; or as Levrier has it, PH_2. When the solution has attained the crystallizable point, a temperature of about 70° to 90° is best. Though there are good reasons for preparing some of the medicinal hypophosphites by double decomposition, there can be none for the potash and soda hypophosphites. Notwithstanding what Rose says of concentrated alkaline solutions and phosphorus being converted the most quickly into phosphates, I find the strong solutions, as 1·075 to to 1·100, best adapted for oxidizing the phosphorus quickly; but of course, if boiled in an open pan, his aphorism becomes true. Liq. potassæ or sodæ, 1·075, takes up one-fortieth part of its weight of phosphorus, a portion of which seems to pass into hypophosphorous acid from a state of vapour; but the greater part passes through suboxidation—the yellow oxide which Graham calls "the hydrate of phosphoric oxide," and supposes it to contain one-fifth water. On brisk ebullition this vapour passes off, and burns non-explosively, constituting a great source of waste in manufacturing on the large scale. By experiment I have proved this loss to be one-third. It is easy to distinguish the escaping phosphorus flame by its luminosity, so different from the bright vivid explosions of phosphuretted hydrogen. Weak alkaline solutions produce much waste of phosphorus in the form of an insoluble flocculent hydrate.

(To be continued.)

TESTIMONIAL TO DR. SPENCE, OF LETHAM, FIFE.—On Saturday, the 9th inst., the Rev. Dr. Ceitch, Monimail, waited on Dr. Spence, and in the name of a large number of his patients and friends presented him with a portion of silver plate and a purse of sovereigns. In a very short time nearly £150 were collected for the testimonial, and the silver plate consisted of a very handsome claret-jug and cake-basket. The jug bore the following inscription: "To Wm. Spence, M.D., Letham. Presented, along with a purse of sovereigns, by a large circle of friends and patients, in token of their appreciation of his valuable services, and their deep regret that impaired health has rendered necessary his retirement from a field of increasing usefulness." Dr. Spence, though unable to speak much, expressed his gratification at this token of kindness from his old friends now that illness had weakened his strength, and said that the plate would be preserved as an heirloom in his family when he was gone. Unhappily, Dr. Spence did not long survive the honour thus conferred upon him, as will be seen by reference to our obituary.

A Mirror

OF THE PRACTICE OF

MEDICINE AND SURGERY

IN THE

HOSPITALS OF LONDON.

Nulla est alia pro certo nascendi via, nisi quam plurimas et morborum et dissectionum historias, tam aliorum proprias, collectas habere et inter se comparare.—MORGAGNI. *De Sed. et Caus. Morb.*, lib. 14. Proœmium.

LONDON HOSPITAL.

UNILOCULAR OVARIAN TUMOUR, AT ONE TIME ASSOCIATED WITH PREGNANCY; OVARIOTOMY; DEATH FROM PERITONITIS ON THE THIRD DAY.

(Under the care of Dr. DAVIES and Mr. CURLING.)

SINCE the last report of cases in the "Mirror" in which ovariotomy was performed (THE LANCET, vol. i. 1861, p. 34), the operation has been frequently resorted to both in public and private practice, with results that may be considered on the whole as fairly satisfactory, when its formidable nature and other circumstances are taken into consideration. We now add the particulars of thirteen cases, followed by recovery in nine. The ages of the patients comprised amongst the latter were respectively 22, 21, 19, 49, 23, 27, 18, 50, and 38 years; all with the exception of two being favourable for the operation. The fatal cases include four, whose respective ages were 20, 24, 40, and 50 years. On analyzing the cases further, we find that adhesions, more or less extensive, were present in four of the successful and in all of the unsuccessful examples. A ligature was generally employed, excepting in the cases under the care of Mr. Brown, a preference being given by him to the clamp, consisting of an ordinary pair of carpenters' callipers. In Dr. Tyler Smith's four successful cases, noticed in a previous number of this journal, the ligatured pedicle was allowed to fall within the pelvis. The advantage of the clamp is that in three or four days it can be removed without inconvenience or danger, and the pedicle is gradually retracted within the abdomen. Then, again, an objection has been raised against the clamp that it causes much straining in the event of vomiting or tympanitis. The tumour was polycystic in six of the successful and in two of the unsuccessful cases.

Notwithstanding the liability there is in certain patients to the occurrence of hæmorrhage, peritonitis, and shock after the operation, statistics now show that a recovery may be anticipated in two out of every three cases, a proportion of success decidedly greater than after many of the other major operations of surgery.

It will be recollected that in our previous series of ovariotomy cases in hospital practice all ended badly. This to some extent was due rather to external influences than to the operation itself. Dr. Tyler Smith considers that the excessive mortality after the operation both in this country and on the continent must be due to some external poison. The majority of surgeons will agree with him that ovariotomy patients cannot safely be collected together, or mixed with patients suffering from other diseases; and if ovariotomy is ever to take a recognised position in our hospitals, small and separate wards must be appropriated for the purpose, and the general hygienic conditions rendered as favourable as possible. This applies with equal force to any other operation in which the integrity of the peritoneal cavity is invaded, as to that under consideration.

Mrs. K——, aged twenty-four, a small woman, in good general health, was admitted with ovarian dropsy, under the care of Dr. Davies. She had the appearance of a woman at the full term of pregnancy. Fluctuation was very distinct, and the tumour was considered unilocular. Abdominal enlargement was first noticed three years ago, and gradually increased in size. Eighteen months later she married, and at that time her abdomen was so prominent that her sisters had suspicions as to her condition. Within a month after marriage she became pregnant; by this time her size was that of a person nearly at her ninth month. Ten months after marriage she was delivered of

a living child, after a very favourable labour. She nursed her baby for some time, and now it is eight months old. A few weeks before admission she had an attack of diarrhœa, lasting some days. She had suffered from several attacks of acute pain in the belly at different periods of the past year, followed by much tenderness. As no gliding of the parietes on the cyst could now be felt, adhesions were suspected as the result of the attacks of peritonitis. She had lost flesh lately, but ate well, and was in good spirits. Although fully aware of the danger of the operation, she had firmly made up her mind to have it done.

The patient was transferred to Mr. Curling, and, after a consultation with his colleagues, he determined to perform the operation. This was done on the 22nd of March, 1861, in a private ward, with the temperature at 75°, chloroform being given by Dr. Mackenzie. The integuments were divided to about four inches at first, and subsequently the incision was enlarged three inches upwards, to just above the umbilicus. The cyst was now exposed, and found to be loosely adherent in front, but much stronger on both sides. As the contents of the cyst did not readily flow through the canula, the patient was partially turned on one side, and a free incision made into the front of it. No fluid was allowed to come into contact with the peritoneum. The adhesions to the omentum were very extensive, but not very firm; they were, however, in the right iliac and lumbar regions, where they were separated with some difficulty. The tumour involved the right, and not the left ovary, as was supposed by the patient. Its pedicle was long and thin, and was secured by a single piece of whipcord, the cyst being then cut away three inches higher up. The abdomen was now closed, and the wound united by hare-lip pins, the pedicle being brought out and secured in position at the lowest part of the wound. After removal to bed, a suppository of ten grains of soap-and-opium pill was introduced into the rectum. For a part of the time she went on well after the operation, especially the first twenty-four hours, being sedulously watched by Mr. Bush, the house-surgeon in charge. During the second night she suddenly became worse, but rallied under stimulants. Death, however, took place about sixty hours after the operation.

The autopsy showed extensive peritonitis of a low form. The peritoneal surfaces were everywhere greasy with soft lymph, which showed no tendency to organize. Some ounces of thick sanious fluid, but no coagula, occupied the pelvic fossæ. The wound and the pedicle were in good condition; the former was well united, and the latter in process of separation. The cyst proved to be, as was previously supposed, unilocular; there were no secondary cysts whatever. Tapping had never been performed. Evidence was present of repeated and severe inflammation both within and without the cyst. The obstacle to the removal of the fluid by the trocar during the operation consisted of a large floating false membrane, which had entangled itself on the end of the canula. It was of remarkable strength, and much resembled a piece of the omentum.

POLYCYSTIC OVARIAN TUMOUR NOTICED SIX MONTHS; OVARIOTOMY; RECOVERY.

(Under the care of Mr. MAUNDER.)

M. H——, aged twenty-two, has always enjoyed good health until within the last nine months, when she ceased to menstruate. About six months since she noticed a hard swelling on the right side of the abdomen, which has grown larger, and gradually extended towards the right side of this cavity. The patient came under Dr. Down's observation amongst the out-patients, when Mr. Maunder also saw her, and was of opinion, with Dr. Down, that the tumour was ovarian, and favourable for removal. Up to the moment of admission the patient had followed the occupation of a domestic servant.

Sept. 16th.—The tumour was to-day removed by Mr. Maunder, by a median incision below the umbilicus, made sufficiently large to admit the hand to sweep the surface of the swelling. From twenty-five to thirty pints of semigelatinous fluid were evacuated from three principal cysts; after that, some slight adhesions to the anterior abdominal wall were torn through. The operator being ably aided by his colleagues, Mr. Hutchinson and Mr. Couper, no fluid found its way into the abdominal cavity, and a small knuckle of intestine was alone seen. The multilocular cyst having been withdrawn, the pedicle was tied by a double ligature, and by a second to encircle the whole, and was kept in position by a pin transfixing it behind the ligatures, as well as the edges of the wound. Sickness occurred during the operation, and persisted for some hours (being probably due to chloroform), and was followed by a troublesome pyrosis, lasting some days. The patient was fed per rectum for the first week, nothing but ice being allowed to pass the lips.

Oct. 29th.—To-day she leaves the hospital, with the wound healed, except at its inferior angle, whence a little pus occasionally issues. Much credit was considered to be due to Mr. Woodman, the house-surgeon in charge, for the care and attention bestowed by him upon the patient during the after-treatment.

GUY'S HOSPITAL.

POLYCYSTIC OVARIAN TUMOUR, PREVIOUSLY TREATED BY TAPPING AND INJECTION OF IODINE; OVARIOTOMY; DEATH IN TWENTY-SEVEN HOURS.

(Under the care of Dr. HICKS and Mr. BRYANT.)

DIFFERING from the other cases in the present series, the following had been treated by the injection of a watery solution of iodine on the occasion of a second tapping. The compound character of the disease, however, wholly precluded the possibility of any relief by this means, and ultimately the tumour was removed in the usual way. Although the patient's age was most favourable, yet the disease had severely told upon her constitutional powers; the result was consequently fatal, death ensuing in twenty-seven hours, from the combined effects of shock and peritonitis.

E. B——, aged twenty, married a year and a half. She first noticed the disease two months after marriage. She was admitted into Mary ward, under the care of Dr. Hicks, in August, 1860, and twelve quarts of fluid were evacuated by tapping. A small secondary cyst was at that time noticeable in the anterior part of the right side of the cyst-wall. In November of the same year she was again admitted, tapped, and the cyst injected with a watery solution of iodine. Much irritation was caused by the operation, but she went out in about a month. The secondary cysts were found, on this second tapping, much increased in size, number, and solidity. She was a third time admitted in May, 1861. The secondary growths had now formed a hard mass, which had enormously increased, at the expense of the primary, and, when tapped, only yielded a few pints of pale, flaky fluid. The rest of the cysts were small, and it was found of no use to puncture them. She went out in a fortnight; but her health beginning to fail, and the last tapping not having afforded much relief, the only chance for cure which remained was by excision. On her re-admission, this operation was proposed and accepted. She had become decidedly thinner since her first admission.

Chloroform having been administered, the operation was performed on July 9th. Owing to the warmth of the weather, no necessity existed for any precautions concerning temperature, except to obtain fresh air. A good-sized room in the centre of the hospital was chosen. The small incision was made, extending from over an inch below the umbilicus to an inch above the pubes—about four inches altogether. A remarkably thin cyst was observed, which was tapped. Several secondary cysts appeared, and on attempting to withdraw them from the abdomen they tore easily, and discharged their contents into the peritoneum. They appeared to be composed of the thinnest membrane, and broke down on the slightest touch. The greater part of the cysts were non-adherent to the parietes of the abdomen, but some were attached, and a considerable surface of omentum was firmly adherent to them. This was carefully separated. A very small pedicle appeared on the left side, which was attempted to be secured by a wire suture, twisted with a pair of carpenters' nippers. This not being considered by Mr. Forster sufficiently secure, the pedicle was tied with a ligature; the contents of the cysts, with the blood which had passed into the peritoneum, were then carefully removed; and as considerable oozing was still taking place from the omentum, it was tied. The ligatures around the omentum and pedicle were returned into the abdomen, and the lips of the incision in the parietes were brought together by pins. The patient never rallied, and died in twenty-seven hours.

Post-mortem examination.—Slight general peritonitis of a low form was observed; the coils of intestine were united together, and the pelvis contained a pint of pink-coloured turbid fluid, but no coagulum; the ligature was round the omentum, and the operation appeared to have been perfect. The uterus with its right ovary and tube were healthy and free; the ligature was around the pedicle of the left. The anterior walls of the abdomen were covered in places with shreds of tissue, from the tearing away of the cyst.

LONDON SURGICAL HOME.

SEVEN EXAMPLES OF OVARIAN TUMOUR, IN SIX OF WHICH OVARIOTOMY WAS SUCCESSFUL.

(Under the care of Mr. BAKER BROWN.)

THE subject of one of the following cases, a woman under twenty-three years of age, expressed an anxiety as to the possibility of her having a family in the event of marriage at a subsequent period. In relation to this she was assured there was not the slightest obstacle in her case to the accomplishment of such a result. We have met with instances of pregnancy after ovariotomy, and without any inconvenience to the mother or the child; and we have heard Mr. Baker Brown state that in one of his first cases the patient had borne four children after the operation.

Although an unusual circumstance, pregnancy does arise sometimes where an ovarian tumour is present. Such an occurrence is recorded in our pages by Dr. Hunter, of Manchester (*vide* THE LANCET, vol. i. 1861, p. 83); and, what is of remarkable interest in connexion with it, the cyst evacuated itself by the bowel. The case of Dr. Davies, in our present series, is an illustration of pregnancy supervening upon ovarian disease, terminating, at the full period, in the birth of a child (now living), with persistence of the ovarian disease in the mother.

The seven following cases make a total of sixteen operations for ovariotomy performed at the London Surgical Home; of which number twelve have been successful. The great success here obtained, we think, has to some extent depended upon the course of preparatory treatment which the patients underwent, consisting of warm baths twice a week for three weeks prior to operative measures, and the administration of a combination of the tincture of arnica and muriated tincture of iron during the same period, with attention to the general health:—

CASE 1. *Unilocular tumour.*—L. H——, aged twenty-one, single, admitted Aug. 29th, 1861. She has had the tumour two years; has been tapped twice, the last time four gallons of clear fluid being drawn off. Operated upon on Sept. 19th. The tumour was devoid of adhesions, and was easily drawn out. The pedicle was secured by a clamp, which was removed on the third day, and the pedicle allowed to return. The patient never had a bad symptom, had only one grain of opium, and left the Home Oct. 31st, cured. The tumour was unilocular.

CASE 2. *Polycystic tumour.*—F. W——, aged nineteen, admitted Oct. 7th, 1861. Has had the tumour two years. She came here as kitchen-maid, when it was first discovered in conversation with the nurse. Operation performed on Oct. 24th. The tumour was devoid of adhesions, and the pedicle treated as in Case 1. Two grains of opium were given, and she did well without a bad symptom, and will soon leave the Home. The tumour was multilocular, but chiefly composed of one large cyst, containing fourteen pints of fluid, which with the solid matter weighed about twenty pounds.

CASE 3. *Polycystic tumour.*—C. S——, aged forty-nine, married, admitted Sept. 9th, 1861. She has had the tumour six years; has been twice tapped, once by Mr. Birkett, the second time on Sept. 12th, when twenty-five pints of dark-brown, coffee-coloured fluid of thick consistence were drawn off. She was operated upon on Oct. 31st. There was some adhesion in the direction of the liver, which was secured with a ligature of Indian hemp, and several other slight adhesions, which were easily broken down. The pedicle was treated as in Case 1. The patient did pretty well till Nov. 2nd, when peritonitis seemed coming on. This, however, succumbed to treatment, and she is now convalescent. She had five grains of opium. The tumour was multilocular, and composed of two large cysts with very thin walls, containing eleven or twelve pints of fluid and several masses of solid cysts, varying in size from that of a walnut to an orange.

CASE 4. *Polycystic tumour.*—M. A. M——, aged fifty, married, admitted October 14th, 1861; is the mother of six children, of rather a worn constitution, and of a desponding temperament. Has had the tumour three years; never been tapped. Operated upon on the 31st of October. There were no adhesions in front, but there was one in the direction of the liver, and it was also attached to the whole surface of the fundus of the uterus. There was great difficulty in extracting the tumour,—firstly, because it was of the nature of honeycomb cysts, and although pierced in several places hardly any fluid escaped; and secondly, because the tumour had modeled itself to the cavity of the pelvis. The pedicle was so large that it had to be divided into five separate portions, one of which was secured by a clamp, and the others each by a double ligature. All these were retained outside. The patient had three grains of opium, but never rallied, and sank forty hours after the operation. The tumour weighed 6 lb. 14½ oz., and the surface from which the pedicle had been cut off measured 5½ in. by 3 in. The autopsy showed partial general peritonitis, the pedicle was covered with clots, and there was some blood in the peritoneum. The liver, heart, &c, were healthy and full of blood. Nothing was found sufficient to account for death. Patient evidently died from shock.

CASE 5. *Unilocular tumour.*—M. T——, aged twenty-three, single, admitted October 16th, 1861. Has had the tumour two years. Operated on October 31st. No adhesions; pedicle treated as in Case 1. Had one grain of opium, and never a bad symptom; is now quite convalescent. The tumour weighed nearly a pound, one large cyst containing twenty-three pints of perfectly clear colourless fluid. On the internal surface were studded thousands of smaller cysts.

CASE 6. *Polycystic tumour.*—S. D——, aged twenty-seven, single, admitted Oct. 15th, 1861. Has had the tumour fifteen months. Was tapped last June by Dr. Braxton Hicks, who drew off seventeen pints of fluid; tapped a second time by Mr. Brown, who drew off thirty-three pints of fluid. She then measured forty-five inches around the umbilicus. Operated on Nov. 14th. The adhesions were so powerful that the cyst was cut through in the third incision, which was made in the linea alba. One band of adhesions was ligatured; the pedicle secured with a clamp, and treated as in Case 1. The tumour was very multilocular, weighed 7 lb. 2 oz., and contained twenty-two pints of fluid. She has never had a bad symptom; neither a grain of opium nor any other medicine was required. The wound was perfectly healed in a week.

CASE 7. *Polycystic tumour.*—K. E. S——, aged eighteen years, admitted Oct. 28th, 1861. Has observed the tumour between three and four months. Has not menstruated for eight months. Has never been tapped. Operated on Nov. 21st. On making the median incision, a piece of the descending colon presented itself in front and at the lower part of the tumour, and was adherent to the abdominal parietes. The adhesions were very powerful and extensive. The uterus was much drawn up, and intimately connected with the pedicle, which was inordinately long and thick; and in cutting off the latter after it had been secured by the clamp, a small portion of the right corner of the uterus was snipped. This bled profusely, and the wound had to be secured by six small silver sutures. The general hæmorrhage was unusually great. Up to the present time (Nov. 28th) the patient has not had a bad symptom, and three grains of opium have been administered.

METROPOLITAN FREE HOSPITAL.

UNILOCULAR OVARIAN TUMOUR IN A WOMAN WHO HAD BORNE SIX CHILDREN; OVARIOTOMY; RECOVERY.

(Under the care of Mr. BOBLASE CHILDS.)

THE fact is one of interest in the following case, that the patient had ceased child-bearing twelve years, and was the mother of six children; the catamenia had ceased for six years, and the tumour commenced to grow a year before admission, at a period when ovarian excitement has generally passed away. Although her age was fifty, the operation was not followed by a single untoward symptom.

In the other example, a woman aged forty, it is matter for surprise that she progressed so favourably as she did for a time, considering the formation of local collections of pus in the abdomen. The wound, however, had perfectly healed.

For the notes of the first of the following cases we are indebted to Dr. John Warner, the resident medical officer:—

Ellen D——, aged fifty, a well-nourished Irishwoman, who has always enjoyed good health, was admitted August 28th, 1861, suffering from ovarian dropsy. The abdomen was greatly distended, and universally dull on percussion over the anterior part, with distinct fluctuation, leading to the diagnosis that the disease was unilocular, and contained a thin fluid. She has been a widow the last two years and a half; had been married twenty-three years, and has had six children, the youngest of whom is twelve years old. The catamenia were regular up to about six years ago, since which they have not appeared, nor has she been subject to any other discharge. She first noticed the enlargement of her abdomen twelve months ago by find-

ing she was "getting clumsy" in stooping, which greatly interfered with her occupation as charwoman. She did not notice that the disease began on either side. Has had no abdominal pain, but observed that the enlargement had been increasing more rapidly of late. Had had no medical advice until she came under the care of Dr. Wallace, one of the physicians to the hospital.

On Sept. 23rd, at two P.M., the patient being placed under chloroform, in a room raised to the temperature of about 80°, and the catheter having been passed, Mr. Childs made an incision in the linea alba from below the umbilicus downwards for about four inches, cutting down to the peritoneum, which was opened on a director; he then passed in his hand for a short distance, and found, as was expected from the previous absence of pain, that no adhesions existed. The cyst was then punctured with a trocar, and about twelve pints of a somewhat viscid and opalescent fluid escaped, the cyst being pulled out as the fluid drained off; the sides of the wound were at the same time pushed together, so that none of the contents of the abdomen beside the cyst were seen during the operation. The pedicle, about the thickness of two fingers, was then transfixed with a double whipcord ligature and tied; the wound was accurately closed with the interrupted suture, the lowest one being passed through the pedicle; and the patient was removed to bed after the application of a flannel bandage. No sickness or nausea followed the use of the chloroform, which Mr Childs attributed to the patient having sucked some ice and taken two grains of opium before the operation. The catheter was again passed in the evening, and the opium repeated.

24th.—Patient has passed a comfortable night, sleeping a little; no pain or sickness; passes her urine without the aid of a catheter. Pulse 70, soft; tongue moist and clean.

25th.—Still comfortable. Pulse 68; tongue clean. Has taken nothing but a little ice since the operation.

27th.—Still going on well.

28th.—Ordered four ounces of wine daily. Some of the sutures removed.

31st.—Patient rather restless; ordered to repeat the opium.

Oct. 3rd.—All the sutures and ligatures removed; wound quite closed; slough of pedicle removed, having nearly separated. The skin at the lower part of the wound is somewhat excoriated. Pulse 6-, soft; tongue clean. To continue the wine and take two ounces of brandy daily, and to use zinc ointment to the wound.

4th.—Bowels have not been opened since the operation. To have enemata of warm water.

5th.—Bowels freely relieved; patient feels quite comfortable. To take a mixture containing three grains of quinine three times a day.

11th.—Excoriation nearly well; patient sitting up.

From this time she continued to improve, and is now (Oct. 31st) up and about the ward.

UNILOCULAR OVARIAN TUMOUR, ADHERENT TO THE ABDOMINAL WALLS; OVARIOTOMY; FATAL RESULT ON THE NINETEENTH DAY.

(Under the care of Dr. BARNES and Mr. HUTCHINSON.)

Mrs. B——, aged forty, was admitted into the hospital at Dr. Barnes' wish, under whose care she had been for ovarian dropsy. She had never been tapped. The tumour was large and freely fluctuating. Its existence had been recognised for about a year. The history was that the patient had had a sharp attack of peritonitis two months ago, during which she was confined to her bed for several days. After careful examination, Dr. Barnes and Mr. Hutchinson agreed to advise ovariotomy, as the general health of the patient was rapidly giving way. They diagnosed the existence of adhesions, and believed the tumour to consist chiefly of one large cyst.

The operation was performed in the usual manner whilst the patient was under the influence of chloroform. Extensive adhesions were encountered anteriorly and laterally, and some in the pelvis were remarkably firm. The cyst itself was thin, and gave way at one point, allowing some of the contents to escape. The pedicle was secured by ligatures, and retained outside of the wound. The blood and cyst-fluid which had escaped were carefully sponged out of the peritoneal cavity with a scalded sponge. The wound was closed with hare-lip pins.

The patient rallied well after the operation, and her progress during the first week was fairly satisfactory. She was fed chiefly by the rectum, as her stomach was irritable. At the end of the first four days she began to take food well, and had no sickness; the pulse, however, was still quick. Subsequently she complained of much pain in her left side, and then in the lower part of the abdomen. During the second week she became gradually lower. About the fourteenth day aphthæ appeared on the tongue, and she lost all appetite. She sank gradually, and died on the nineteenth day. The wound was soundly healed.

At the autopsy, several large collections of sero-purulent matter were found encysted by adhesions in different parts of the abdomen. In some of these the fluid was thick yellow pus; in others, thin and serous. There was no general peritonitis.

MULTILOCULAR OVARIAN TUMOUR; OVARIOTOMY; RECOVERY.

(Under the care of Mr. HUTCHINSON.)

In the following case it will be seen that the patient was in every respect in a favourable condition for the performance of ovariotomy. The cyst had never been tapped, and there appeared good reason for believing that no adhesions had formed.

Mrs. B——, a healthy woman, about thirty-eight years of age, was admitted as an out-patient, on account of ovarian dropsy, in March last. She was the mother of several children, the youngest being three years old. She had first noticed an enlargement of the abdomen about a year ago, and it had steadily increased. Her size was now that of a woman at full term of pregnancy. Partly from the examination of the abdomen, and partly from the woman's statement that she had never had the least pain in connexion with the tumour, Mr. Hutchinson expressed a confident opinion that no material adhesions existed.

The patient, having been apprised of the nature of her case, of its probable termination if let alone, and of the risks which attended an operation, decided, after some consideration, in favour of the latter alternative, and she was accordingly admitted into the hospital for that purpose in April.

The operation was performed under chloroform, in the presence of Dr. Barnes, Dr. Hughlings Jackson, Dr. Bader, Mr. Chance, and others. The incision of the peritoneum did not exceed three inches. The tumour was tapped in three places, this being necessitated by its multilocular character, and was gently drawn out at the wound as it emptied itself. There was no adhesion whatever to the parietes of the abdomen; but the omentum was firmly united to the cyst over a limited extent. It was not judged safe to detach the omentum at this spot, and a ligature was accordingly applied to it, and it was brought out of the wound. The pedicle of the tumour proved to be long and thick; it was temporarily secured by a single ligature, and subsequently (after removal to bed) by two. No bleeding occurred, nor did any of the cyst-contents escape into the peritoneum. The wound was closed by hare-lip pins, and a flannel bandage was applied. The operation had occupied but a very short time, and the patient was removed to bed in an exceedingly satisfactory condition. A two-grain opium suppository was introduced at the time. No ill symptoms whatever followed, and little or no medicine was given after the first opiate. On the fourth day, however, the patient, from some accidental cause, had a violent fit of retching, during which the central part of the wound gave way, and a portion of the omentum was found prolapsed beneath the dressings. The pins had been removed on the day previously, when union appeared good. After very carefully washing the extended portion of the omentum and the edges of the laceration, Mr. Hutchinson reduced the former, and united the latter by two wire sutures. Small doses of opium were given during the next twenty-four hours, and all did well.

The woman left the hospital about a month after her admission, being then in excellent health. It is now nearly two months since she left, during which period she has been in the regular discharge of her domestic duties. Menstruation has occurred three times since the operation.

THE SITE OF NETLEY HOSPITAL.—The following extract from the recently-published Statistical Report of the Health of the Royal Navy for the year 1858 will be read by many with interest:—"In the remarks for the preceding year it is mentioned that in the *Melampus*, lying moored in the Southampton waters, there were remarkably few cases of febrile disease of any kind. During the present year, the *Arrogant*, with the same ship's company, occupied the same position—namely, off Netley—and with the same result: both officers and men enjoyed most excellent health; and in a crew averaging 120 men there were only two slight aguish attacks, which together did not unfit the patients for duty more than six days: thus affording additional proof of the good sanitary condition of the locality, notwithstanding all that has been said to the contrary."

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 19TH, 1861.

DR. COPLAND, PRESIDENT.

THE minutes of the preceding meeting were read and confirmed. Several new members were proposed and admitted.

MEMBRANOUS CASTS OF THE BRONCHIAL TUBES.

Mr. CANTON brought before the Society these specimens for Mr. Whitmore. They were coughed up by a female aged twenty-two, who laboured under aphonia, headache, and stiffness of the neck; but there was no dyspnœa. There were congestion of the fauces and relaxation of the uvula. The general health was in no way affected.

Dr. COPLAND had seen many cases of the membranous casts in which the symptoms had been very slight.

MYELOID DISEASE OF THE UPPER END OF THE ULNA, INVOLVING THE ELBOW-JOINT.

Mr. CANTON also exhibited this specimen from a young man whose arm he was obliged to amputate for the affection. The age of the patient was twenty eight. For six years there had been a steadily increasing contraction of the joint, without pain or swelling. For the last two years a tumour has been growing, which involved the anterior part and sides of the articulation, but not the posterior portion, so that the olecranon and humeral condyles were naturally distinct. Pain now set in—at first at no definite spot; but by degrees it was referred to the course of the nerves down the forearm, and became constant and severe. Two months before the removal of the limb the swelling rather suddenly increased, with a proportionate augmentation of the pain, and the elbow now became fixed in a rectangular position. Mr. Canton amputated at the arm. Examination of the tumour, subsequently, showed the disease to have sprung from the anterior part of the upper end of the ulnar, and extended upwards and to the sides of the elbow-joint, but not implicating the articulation itself. The diseased mass was about as large as a fœtal head, and presented the usual histological elements characteristic of myeloid disease.

SYPHILITIC DISEASE OF THE LIVER AND DIAPHRAGM AND DURA MATER.

Dr. MURCHISON thought these cases well worthy of the attention of the members. A woman, aged twenty-seven years, had been well to the period of her marriage, at the age of twenty. Soon afterwards she became the subject of syphilis, with the usual early secondary symptoms. Three years after this she had epileptic fits, and she complained of intense pain in the occiput. At the post-mortem, the calvaria was found adherent to the dura mater, and was very rough; the dura mater here was thickened and adherent to the brain. In the liver were the fibroid deposits so frequently found in syphilitic patients; also in the substance of the diaphragm, connecting together it, the liver, and the spleen. The microscope showed them to be made up of fibrillated tissue.

A second case was that of a woman who lived fourteen years after becoming the subject of syphilis. She had had nodes on the left side, with intense pains in the head. During the last fourteen days of her life she was the subject of fits, epileptoid in character. The liver presented the same appearances as in the previous case; the dura mater also, corresponding with the situation of the nodes. Both cases had been greatly benefited by the iodide of potassium.

Dr. COPLAND had prescribed iodide of potassium at a very early period, but, on the whole, thought that the bichloride of mercury had been more successful, followed subsequently by the first-named drug.

Mr. CALLENDER inquired what the condition of the kidneys was in these cases?

Dr. O'CONNOR inquired if in the cases mentioned by Dr. Murchison, he had any knowledge of the treatment adopted during the primary attack? Dr. O'Connor's reason for making the inquiry was, that having seen a great many cases of constitutional syphilis in which there were affections of internal organs, the result of his observations was, that those affections would only be found to exist where mercury was but imperfectly administered, or altogether omitted from the treatment. Again, it would be found that syphilitic deposits in the brain, spinal cord, or other internal organs, except the lungs, did not take place before a certain time after the primary attack. The earliest period he had noticed them was eight years. Syphilitic disease of the lung showed itself frequently within a year or two. He had now under his care at the Royal Free Hospital five cases of syphilitic affections of internal organs. Two were admitted having all the constitutional evidences of phthisis, but none of its physical signs; one a case of hemiplegia; one paraplegia, with brain disease, iritis, and sloughing of the cornea; the next one of general paralysis. All these cases were getting well under mercurial treatment. He agreed with the President, that the iodide of potassium was not of any value in cases of this kind. It was only after the use of mercury that it was beneficial. He (Dr. O'Connor) was in the habit of using mercury in a manner which he found of great benefit in cases of constitutional syphilis where its continued use was desired. It consisted in the introduction into the bowel every night of a suppository of from fifteen to twenty grains of mercurial ointment. By this plan it was effectually taken up into the system, and there was avoided the irritation of the mucous membrane of the stomach and bowels, which too often followed the use of various preparations of mercury when administered by the mouth, and the disagreeableness of mercurial inunction. This plan of treatment he had recourse to in nearly all the cases coming under his care.

Dr. MURCHISON said that the kidneys in the one case exhibited well-marked waxy degeneration; in the other there was fatty degeneration. He was not aware of the early treatment.

FRACTURE OF THE LOWER END OF THE RADIUS, WITH THE STYLOID PROCESS OF THE ULNA TORN OFF.

Mr. J. WOOD stated that this was a dissecting room specimen, and was placed on record to show the occasional association of fracture of the ulnar styloid process with Colles' fracture of the radius. The fracture was not united; but the existence of some effusion and the appearance of the surrounding parts proved its occurrence some time before death. No crepitus of the ulna could be felt.

Mr. J. WOOD exhibited for Mr. SKRIMSHIRE a specimen of

DISEASE OF THE DURA MATER; EFFUSION OF BLOOD INTO THE ARACHNOID CAVITY; PARALYSIS OF THE SAME SIDE AS THE CLOT.

The subject of this disease was a young man of intemperate habits, who had for some time complained of pain in the head, increased by drink. He went to bed intoxicated on the morning of the 2nd of November, complaining of intense pain in his head. He was noticed to writhe about for some time, and subsequently became insensible, continuing so until his death on the 4th. The other symptoms observed were paralysis of the right side, dilatation of the right pupil, involuntary passage of the fæces and the urine. On a post-mortem, a large clot was found enveloping the posterior two-thirds of the right hemisphere on its upper, lateral, and lower surfaces—thickest above near the junction of the middle and posterior lobes. Opposite this point (and directly in the course of a large branch of the meningeal artery) was found, on the inner surface of the dura mater, a patch of a bright red colour, with effused lymph, and, in places, an excavated ulcer-like appearance. No corresponding disease of the visceral layer, no adhesion, nor other lesion, was found accounting for the extravasation. No internal clot was observed, nor any lesion in any of the great centres to account for the chief peculiarity in this case—i. e., paralysis upon the same side as the clot. There was no history of any previous convulsions.

WESTERN MEDICAL AND SURGICAL SOCIETY.

FRIDAY, NOV. 15TH, 1861.

MR. ALFRED LEGGATT, V.P., IN THE CHAIR.

MR. CHARLES HUNTER narrated the particulars of a case of

DISEASED BRAIN,

the prominent symptoms being irregularity and distress of breathing. The patient, aged seventy, had had a previous apoplectic seizure, and was partially recovered. When seen by Mr. Hunter, the chief symptom requiring treatment was distress in breathing; this dyspnœa occurred in fits of various duration, which gradually increased in severity until death. These fits were excited without any apparent cause, and oftentimes as he awoke from sleep. After death, the veins of the brain were full of blood; the ventricles natural; the choroid plexuses full of gritty matter; and the white tissue of the

brain was of a slightly yellowish hue. The cyst of the old apoplexy was found, and in the left corpus striatum was seen a reddish bruise-like mark. Some of the vessels forming the circle of Willis were almost obliterated, and all seemed diseased and thickened. Mr. Hunter attributed the cause to arterial degeneration, interfering with the due circulation in the brain, at times causing local disturbances and imperfect nutrition. The case was treated by stimulants.

Dr. MARTYN related a case of

COMPOUND FRACTURE OF THE FEMUR.

The patient, aged forty-nine, had fractured his femur close to the greater trochanter, where the bone could be felt projecting. The external wound was small, and the case was treated by Mr. Spencer Wells by the plaster-of-Paris bandage, which he had used successfully in the Russian War and on several occasions in civil practice. The plan of application was thus described:—The limb (to prevent the hair of the part from adhering) was first bandaged by a flannel roller, and then bandages (composed of coarse muslin) well charged with plaster of Paris, and moistened, quickly applied to the part. The bandages extended from the toes to the waist, being continued the whole length of the limb and round the pelvis; the fractured part was additionally supported by folds of linen also charged with the plaster and moistened, and which acted as splints, being placed outside and inside the limb. The wound of course was left uncovered. At the end of a fortnight the first rollers were removed, and replaced by a many-tailed bandage applied from half way below the knee to the top of the thigh. The leg was secured to the foot of the bedstead at the beginning, to prevent motion. A perfect cure resulted.

Dr. MARTYN also narrated a case of

PROTRACTED LABOUR.

The breech presented, and the delay occurred in the passage of the head through the os uteri; there was also complete cessation of pains, and the delivery was effected after considerable time by manual interference.

EPIDEMIOLOGICAL SOCIETY.

MONDAY, NOV. 4TH, 1861.

DR. BABINGTON, PRESIDENT, IN THE CHAIR.

DR. BABINGTON, after a few introductory remarks, stated that he should now have the pleasure of calling the attention of the Society to a *résumé*, drawn up by Dr. M'William, the Secretary, of the principal epidemics by which the various quarters of the world had been visited during the year that had passed.

Fortunately (the author observed) we have no epidemics of any magnitude to record as having occurred either in this country or on the continent during the last twelve months. Cholera, which in 1860 and the early months of the present year was prevailing at St. Petersburg and other ports in the Gulf of Finland, ceased with the return of spring. The same disease also disappeared about the same time at Ceuta and other stations in the empire of Morocco. Typhus fever had raged to a disastrous extent in the beleaguered fortress of Gaeta, and afterwards amongst the Neapolitan and Sardinian troops at Naples. Typhus had also been prevalent to some extent, but in a mild form, in some of the rural districts of England. In the north-west provinces of India, cholera had swept over extensive tracts of country with appalling force. Preceded by a desolating famine, the pestilence found in the starving population an easy prey to its ravages; and even amongst the European soldiery the per-centage of deaths to attacks had been almost unprecedentedly great.

The West Indies, more especially the island of Cuba, had been visited by yellow fever in the course of the year, with more than usual virulence. Several of her Majesty's ships had been infected with yellow fever at Havannah; and merchant ships had not only suffered from the disease while in that port, but some of them had lost part of their crews in the passage thence to England and other parts of Europe. Yellow fever had been actually introduced into St. Nazaire, at the mouth of the Loire, in the month of September last, by a ship from the Havannah; and within the past week cases of the same disorder were reported on board of a ship at Bordeaux. These facts were justly considered as highly important, and suggestive of the desirability of some authorized declaration of opinion, by a Society like the Epidemiological, as to the vexed question of the infectious or non-infectious character of this terrible malady, which has on several occasions of late years extended beyond its usually recognised limits, and attained elevations and latitudes long considered incapable of maintaining its existence.

Rear-Admiral Sir Alexander Milne, K.C.B., Commander-in-Chief on the West India and North American Station, who is fully alive to the infectious character of yellow fever, and duly appreciates the value of preventive measures, had issued an order, to the effect that the ships of the squadron under his command were, unless under urgent necessity, to avoid anchoring in ports where yellow fever was known to prevail, and were not to remain in close harbours for more than ten days at a time; and, moreover, that in the event of a ship being invaded by yellow fever, she was at once to proceed to the northward for change of climate.

Small-pox had continued to prevail in many parts of England, and in some districts, from the previous neglect of vaccination, had proved very fatal, more especially in the south-western counties, in parts of Derbyshire, and in Northamptonshire. The whole circumstances of the present epidemy of small-pox, which, since its commencement in 1857, had destroyed in England little short of 20,000 persons, had abundantly borne out the allegation as to the neglect and imperfection of vaccination made by the Small-pox and Vaccination Committee of the Epidemiological Society, in their Report of 1853, and Memorial of 1855.

Sanitary reform had made very satisfactory progress, not only at home, but also in the Colonies, and in some foreign countries which had long been remarkable for a disregard of the laws of health. In the colony of Victoria, Australia, at Alexandria, in Egypt, and in the empire of Brazil, sanitary improvement had considerably advanced, as well by private exertion as by legislative enactments.

The census of the population of Jamaica had been taken in the course of last summer, the previous census having been taken in 1844. There had been an increase during the last seventeen years of 63,000 inhabitants, the population in 1844 having been 377,433, and in 1861, 441,264. Amongst the population there were 5986 cripples, 1294 blind persons, 1512 persons afflicted with yaws, 776 with leprosy, 650 dumb, and 461 insane; or altogether between 10,000 and 12,000 permanent, and, to a large extent, incurable invalids in a population much under half a million.

A representation had been made in the early part of the year by Dr. Armstrong, Deputy Inspector-General, in charge of the Royal Naval Hospital at Malta, to Sir W. F. Martin, K.C.B., the Naval Commander-in-Chief in the Mediterranean, submitting that, in consequence of the large number of men in the fleet suffering from syphilis, it was desirable he should use his influence with the local government at Malta to establish a system of periodical examination of the prostitutes of that city. A large number of prostitutes were found diseased, and, being sent to the hospital, were cured. The examinations were rigorously continued by the police authorities, and the beneficial influence of the system had been most marked. The average daily number of primary syphilitic cases in hospital had formerly been from 40 to 50, to say nothing of the numbers on the sick lists of the ships with the same disease, or of the large amount of secondary cases always under treatment afloat, as well as in the hospital. But during the last three months there had not been a single case of venereal disease that was contracted in the island received into the Naval Hospital.

A memorial with a scheme for making the sickness and mortality amongst the pauper population of this country available for the purposes of statistical and general inquiry, drawn up by Dr. Milroy, had been forwarded by Dr. Babington to the President of the Poor-law Board. Mr. Villiers, in acknowledging the receipt of the document in question, stated that he should not fail to submit the scheme and other propositions to the Committee of the House of Commons on Poor-law Relief.

Late accounts stated that the epizootic disease, known as "Steppe murrain" or "pestis boum," had been making great ravages in the western provinces of Russia. Pleuro-pneumonia had also prevailed in the early part of the year amongst the cattle in the colony of Victoria, Australia, and measures had been taken against its introduction into the adjacent colony of New South Wales. An epizooty amongst the hogs of Providence, Rhode Island, had also proved very fatal.

A VERY USEFUL COURSE OF LECTURES.—M. Giraud Teulon, a distinguished member of medical journalism in Paris, announces a course of lectures on the Physiology and Functional Pathology of Vision.

Reviews and Notices of Books.

Army Medical Department: Statistical Sanitary and Medical Reports for the Year 1859. Presented to both Houses of Parliament by command of her Majesty.

THESE valuable official Reports refer first to the general health of the Army, and secondly to various matters connected with the duties of the officers of the Medical Department. They merit the careful attention of officers of all departments, for since the Crimean disaster no officer, whatever be his rank or position or duties, can now be permitted to affect to ignore the existence of a Medical Department of the Army.

The Statistical Report on the Health of the Army in 1859 is the work of a most able statistician and excellent officer of health, Dr. T. Graham Balfour, who so powerfully seconded the late Lord Herbert in his bold attempt to effect radical changes in the Medical Department of the Army—changes, be it observed, rendered necessary, not by any incompetency of the medical officers of the Department, as we shall presently prove, but by the working of a *system* which had not altered for at least a century. The introduction into the Army of numberless able and talented medical men by the late Sir Jas. M'Grigor (as proved by the able Reports contained in this volume) had not succeeded in damaging a *system* which required for its final explosion the disasters of the Crimea. As it is in the nature of all systems to return and reoccupy their original habitat, so it will be well for the present liberal and talented officer at the head of the Medical Department to watch well any retrograde movement calculated to affect the position of that important Department. It is in the alimentary hygiene of invalids that a parsimony highly dangerous to the public interests may be first attempted; or, in plain terms, an attempt made to restrict those comforts which so materially aid recovery from fevers, dysentery, and other exhausting diseases. We do not say that any such attempt has yet been made; we only hint at this as the probable quarter whence a return to "the good old system" may proceed. And it may be as well here, at the commencement of this notice, to say at once that we cannot too strongly recommend the work to the attentive consideration of all surgeons, civil as well as military.

In his introductory letter, addressed to the Director-General (Dr. Gibson), Dr. Balfour takes the trouble to notice some apologetic circumstances why the information contained in the volume is not so full as he could have desired. Assuredly no such apologies were required; the work contains a superabundance of trustworthy documents, furnishing matter for the deepest reflection. England, by force of circumstances unforeseen and unprovided for, enters on a new career; and the United States of America furnish a useful lesson as to the sudden call which may be made on the civil surgeons of a kingdom to share with their townsmen the hardships of a campaign and the dangers of a sharply contested battle.

Dr. Balfour is the successor of that highly talented man, Colonel Tulloch, who first introduced statistics into the Medical Department of the Army. In his hands they are not likely to lose any of their value. Certain fashionable medical theories were no doubt somewhat roughly handled by the accomplished geometrician (for such he was) who preceded Dr. Balfour; but such critical inquiries are of infinite benefit to sound medical science. If we are ever to attain to large views in respect of the value of life in so important a section of the community as that Force which costs the nation so much, it can only be by means of inquiries such as these. Some of the results are striking. During the period from 1837 to 1846 inclusive, the mortality in the following classes of troops, compared with that of 1859, was as follows:—

	1837 to 1846.		1859.
Household Cavalry	10·39	...	4·27
Dragoon Guards and Dragoons	12·08	...	7·94
Foot Guards	18·72	...	8·59
Infantry Regiments	17·06	...	7·58
Civil population in healthy districts...	—	...	7·23

We confess to some doubts as to these figures, and suspect some source of fallacy. It will, indeed, be most interesting to observe whether, under improved sanitary conditions, this diminished rate of mortality can in future be maintained. At present we feel disposed to attribute a portion of it at least to a greater care in the selection of recruits. Dr. Balfour himself seems inclined to this view.

The Report contains a new nosology or nomenclature of diseases; its adoption by the profession generally would at least be accompanied by this advantage, that all medical men would then speak the same language.

Many matters of great interest are considered in Part I.: such as the health movement of the soldier at home and abroad, in the United Kingdom and in the colonies; the alarming inefficiency caused to the Army by the spread of "the greatest of social evils," whether considered at Woolwich or in Gibraltar; and the difficulty, or rather impossibility, of coping with this evil, whether in the vicinity of the metropolis of England, or isolated from the world, as it were, by the blue waters of the Mediterranean and the narrow isthmus of the "neutral ground." Everywhere it is the same. The same difficulty to overcome this great source of inefficiency in armies occurs in every European force—French, Prussian, Austrian, Spanish.

Some valuable facts appear in the course of these inquiries: the climate of Gibraltar, for example, is no preventive against consumption; and that the mortality increases with age in the Mediterranean command is a fact adverse to the practice of repairing to those climates in old age; further, that troops thrive best when actively employed, and that a tropical climate can never be trusted. The diminution in the strength of the troops in the West India command is a circumstance in which all Englishmen ought to rejoice.

The Report (VII.) on the Health of the Troops serving at the Cape of Good Hope merits the attention of every medical man. The prevailing idea that Southern extra-tropical Africa is one of the healthiest, if not the very healthiest climate in the world, is not shaken by this Report, which rather indeed confirms the opinion. The recovery of the 59th, after being completely broken down in China, affords ample proof that a sanitarium might have been established with advantage in Southern Africa; not indeed in or near Cape Town, but more towards the eastern frontier. The same results were observed many years ago, when the Royal African Regiment of Infantry was transferred from the western coast of Africa to the eastern frontier of the Cape. From some cause or other, the idea of a sanitarium has, however, been abandoned. In a word, without entering further into details, it may with safety be said that a marked improvement has followed every sanitary reform in all the colonies.

The elaborate statistical tables contained in this work will form a reliable source of reference in future years, and we may now close this brief notice by calling attention to the special Medical Reports with which the volume concludes. From a large correspondence on the medical topography of stations, have been selected various special Reports of the highest value to those who may hereafter be called on to take charge of troops at those stations. The Report on the Climate and Topography of Deesa, by Mr. Hanbury; of Mount Aboo, by Dr. Ogilvy; of Umballa, by Dr. Kendall; and of Ghazeepore, by Dr. Fleming, Surgeon, 37th Foot, leave scarcely anything to be desired. Mr. Seddal's Abstract has also great merit, as well as the Report on British Guiana, by Mr. Reade. When we recollect the difficult circumstances under which some of these Reports were written, we cannot but concede to their

authors all due praise. Encouraged by what has taken place at head quarters, errors in diet, locality, barrack accommodation, &c., are fearlessly denounced even by young surgeons. Some of these Reports were written in the hot and pestilential climate of India. Let us hope that in time English troops may be found equal to all the duties required of them even there. This was attempted at Ghazeepore, and the 37th Regiment (in charge of Dr. Fleming) was left for a time in sole charge of the station. The experiment will, no doubt, be repeated at other stations, and the active and enlightened staff of the Army will in a few years be enabled to furnish all the required data for the solution of this great question, on which rests the future safety of India. If this vast territory is to be held by force in subjection to England, it can only be done by an English army. The amount of such an army has been estimated at 80,000 efficient men. Now, unless by sanitary and other measures the rate of mortality and of invaliding be greatly diminished, England, with all her superabundant population, could not support such a drain on her vital energies. We have it on good authority that a company of artillery (an arm of the Service composed of picked men) was sent a few years ago to the Mauritius. On landing they numbered 110 men and 6 officers. They returned lately with only 33 men. The 8th Regiment of Foot went to India in 1846, 868 strong, with 34 officers. They returned in August, 1860, with 6 officers and 110 men! If we are ever to hold India, all this must be changed—for the better.

THE ALLEGED COMMUNICATION OF SYPHILIS BY VACCINATION.

To the Editor of THE LANCET.

SIR,—May I beg a small space for the purpose of offering a few remarks upon the narrative copied from an Italian medical journal, and published in THE LANCET of Nov. 16th, p. 485.

Circumstantial as that narrative seems to be, it is too directly opposed to the universal experience of the last sixty years to be received without closer scrutiny and stronger proof of the truth of the allegation. Individuals have before to-day been hanged upon what seemed very strong circumstantial evidence, but which has afterwards turned out to have led to a wrong conclusion and an iniquitous sentence; and so I plead that before Jenner's great discovery is gibbetted upon this Italian scaffold, let several possible fallacies be eliminated; let sentence be suspended until the fact shall be established beyond dispute, and this I take leave to urge is not the case at present.

We are told that, towards the latter end of May last, M. Cagiola vaccinated a child named Giovanni Chiabrera, aged eleven months, in good health, with lymph in a tube sent from Acqui. The operation was performed in the ordinary manner, and with, as M. Cagiola affirms, a very clean lancet. Forty-six children were vaccinated with lymph from the child Chiabrera on the tenth day, and ten days afterwards seventeen other children were vaccinated from the lymph of one of the first series of forty-six.

Of these sixty-three children, forty-six were said to be afflicted with syphilis within two months. The child Chiabrera was in a state of marasmus five months afterwards; and the child from whom the second series of seventeen were vaccinated, had died in a month afterwards. The symptoms appeared in from ten days to two months after the vaccination.

The committee appointed to investigate these cases refrain, it is stated, from coming to a hasty conclusion as to how the disease came to spread amongst these infants, and ask for time to solve the mystery. It would have been wiser, I submit, to have refrained from the hasty publication of so alarming and mysterious a narrative, calculated to lend a fictitious aid to ignorance and prejudice in their opposition to vaccination.

Before the committee come to their conclusion, it is to be hoped that they will be able to inform the profession—

1st. On the history of the *tube* of lymph from Acqui.

2nd. Whether syphilization has been recently practised in the village where these cases occurred; also whether this very clean lancet had ever been used for syphilization. It is well known that this horrible and disgusting practice has been only too frequently permitted on the continent.

3rd. What towards the end of the operation would be the character of the vaccine lymph yielded by *a vesicle* from which *forty-six* children were vaccinated (!), and that moreover being a tenth-day vesicle.

4th. What was the nature of an eruption which is stated to have occurred in some instances towards the end of the course of the vaccine disease, which was considered by the country people to be small-pox, but the characters of which *the medical men were not able to ascertain.*

5th. That the symptoms observed were really those of syphilitic disease.

That a fallacy or fallacies of some grave kind must have crept into this fearful narrative I cannot doubt, when I find that others who have carefully and anxiously investigated this question have decided it in the negative. In Mr. Simon's voluminous Report on Vaccination, presented to the Board of Health in 1857, this point is examined, and found to be altogether wanting in proof. As a member of the Small-pox and Vaccination Committee of the Epidemiological Society, I became informed of the opinions and experience reported by nearly two thousand medical men, and do not remember one example of the transmission of syphilis or any other disease having been related. If in the narrative now under consideration it shall eventually be established that syphilitic disease has been introduced into the system, as I suspect, *simultaneously with, and not through the means of*, vaccination, then I think we have cause to congratulate ourselves that happily syphilization is not practised in this country.

I remain, Sir, your obedient servant,

Upper Holloway, Nov. 1861. W. B. KESTEVEN, F.R.C.S.

"A SYSTEM OF SURGERY."

To the Editor of THE LANCET.

SIR,—The injury of which Mr. Nason speaks in his letter, published in your last number, will be found treated of in the forthcoming third volume of the "System of Surgery," in the essay by Mr. Tatum on the Affections of the Muscular System. Considering that these ruptures of muscles occur not only in the lower extremity, but also, and perhaps as often, in the arm and abdomen, it was found difficult to treat of them amongst the injuries of any one region of the body; while to speak of them in several parts of the book would have involved useless repetition. It was decided, therefore, to defer their consideration to the place which I have mentioned. I regret that Mr. Nason should have been disappointed in his search; and perhaps he will still be inclined to question the propriety of the arrangement adopted. In the completed work, however, these questions of arrangement will be of less consequence, since a reference to the index will show in what part any given topic is to be found. I am, Sir, yours &c.,

Queen-street, May-fair, Nov. 1861. T. HOLMES.

To the Editor of THE LANCET.

SIR,—I consider it only just to the author of "The Surgeon's Vade-Mecum" to state, that in the fifth edition of that work there is a sufficiently full description of the rupture of the ligamentum patellæ, in the chapter on "Diseases and Injuries of Muscles, Tendons," &c., to satisfy any medical practitioner as to how such a case ought to be treated.

A new edition of "Cooper's Surgical Dictionary," (without which no surgeon's library can be considered complete, and the sixth edition of which speaks of the accident alluded to,) containing all the new improvements in the practice of surgery up to the present day, would indeed be a great boon to the profession, and had the editor of "A System of Surgery" taken Samuel Cooper for his model, and brought out such a work, he might possibly have escaped much censure for apparent neglect, which seems to attach itself to his present arduous undertaking.

I am, Sir, your obedient servant,

N. R. C. LEE, M.R.C.S.

Talbot-terrace, Westbourne-park, Nov. 1861.

NORTH STAFFORDSHIRE MEDICAL SOCIETY.—The annual meeting of this Society was held at the Railway Hotel, Stoke-upon-Trent, on the 21st instant. A very able address on "Homœopathy" was delivered by the retiring president, James Yates, Esq. The following gentlemen were elected to office for the ensuing year:—*President:* John Scott, Esq. *Treasurer:* Dr. Wilson Fox. *Secretary:* W. Haslam Davis, Esq. *Committee:* Messrs. R. Games, Thomas Goddard, J. Walker, Charles Proctor, W. H. Folkes.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 30, 1861.

WE have been cautioned of old not to paint a dolphin in the woods. Probably those very well-meaning persons who propose to erect a large hospital in the fields have forgotten their boyhood's lessons concerning the fitness of things. They argue with very great propriety that the free air of the country is more beneficial to the sick than the smoke-laden air of the town. The proposition is unanswerable, and is certain to conciliate a large amount of public support. But the conclusion drawn from it is not a whit less absurd than the incongruities pictured by HORACE. There are perhaps very few hard-worked metropolitans who do not cherish a strong conviction that a country seat is a more desirable residence than chambers in the Temple, or even than a house in a West-end square. The proverbial longing of the toiling citizen is for a box in the country; and it is only by a necessary compromise between his desires and his convenience that he puts up with an imaginary *rus in urbe* by taking a villa in the suburbs.

The smoke of London is one of the evidences of population, of trade, and of manufacture. Wheresoever there is aggregated a large working population, there are the subjects of sudden catastrophes involving injury, and of severe disease. There it is that an hospital is wanted. And it is wanted near at hand, just as much as, and more than the butcher's or baker's shop. Ask the experience of any medical practitioner upon the point. Does the family surgeon find that he is able to retain year after year his old patients who have removed several miles from his neighbourhood? Almost every private family, sooner or later, is overtaken by some accident or illness that compels them to seek for medical assistance on the spot, in preference to their old friend, in whom they had been accustomed to place unbounded personal and professional confidence. The case of the hospital clients is not different, otherwise than in the greater urgency for instant aid. Imagine a poor inhabitant of the Borough afflicted with almost any acute or chronic disease, making him a fit person to be admitted as an in-patient of an hospital, being told to get out of bed, get into a cab, thence to the railway station for a journey several miles into the country, thence to take another cab to the rural hospital. All this involves more expenditure in time, money, and suffering than the poor patient can well afford. Will he not rather cut his contemplated journey in half, diminish his expenditure and his pain, and, instead of taking the rail, make application at Guy's? Is not this human nature, or rather a human necessity? It is all very well to turn a deaf ear to the cry of individual suffering, and to put statistical tables to the rack to show that a large proportion of the in- and out-patients of our London hospitals come from a distance. It by no means follows that because sick country folk flock to London, that sick Londoners would rush to the country. Countrymen and townsmen alike go for what they want. The countryman comes to London because the hospitals are here, and needs must be here. The townsman will not go into the country for an hospital whilst there is an accessible one in London. And in the proposal to send sick people into the country, it is strangely overlooked that not pure air, not medical treatment, alone are desirable, but also facility of intercourse with their relations and friends. Is it necessary to say that a railway fare of even sixpence or less would be an insuperable tax for many of the sick poor and their friends? On a Sunday afternoon not unfrequently more than 3000 persons visit the wards of one London hospital. Few probably go out of idle curiosity. Most go to see a friend, carrying comforts and news of home, and bearing back anxious messages to husband, wife, or children. How many of these visitors could afford the time or the money to travel to that visionary hospital dedicated to St. Thomas and to Solitude in the fields? The sick poor removed from their homes need for their physical and moral health frequent and easy communication with their families. The advantages of this ready intercourse will be found in the eyes of the vast majority of sick persons to far outweigh that of looking out upon the fields.

We have looked upon this question of rural *versus* town hospitals solely from a patient's point of view. The relief of the sick poor is the primary object of an hospital. But we think it is not difficult to understand that every argument worth entertaining, even those taken from apparently opposite points, in reality tend to show that it is to the interest of the poor to keep the hospital in town. Take, for example, the supposed interests of the medical staff and of the medical school. It cannot be expected that the staff will live in detached villas planted around the hospital. It is not reasonable—nor would it be found to work—to require leading physicians and surgeons with important private engagements to waste two or three hours a day in travelling to and from the hospital. A medical man has nothing but his time. Hours and minutes abstracted in railway travelling are an utter loss, involving fatigue, and diminishing the time which he requires for his practical duties, and for the cultivation of the scientific pursuits upon which his fame and his skill depend. To place the hospital out of reach of the visiting staff would end in throwing the direction of the treatment of the sick upon the resident officers. Nothing could be more obstructive to science, and necessarily more detrimental to the sick, than this result. It is wide intercourse with the professional world, an enlarged and varied field of observation, that contribute above all things to form the accomplished physician or surgeon. Confine the best man to the walls of one institution, and you inevitably dispose him to lapse into a *routinier*. And then there are the students. Is there a London student of average intelligence and ambition who would be content to seek in an isolated rural hospital all the means of instruction? Does he not know the advantage of an occasional visit to other hospitals, of frequent interchange of knowledge with the students of other hospitals? Does he not feel the necessity of frequent study at the great London libraries and museums? And as for his morals? It is surely ridiculous to contend that it is a moral advantage to the student to keep him in the country. Is it true that the provincial youth excels the London youth in studiousness and propriety of conduct? And, with regard to the means of study, it seems to be forgotten that here, again, the materials for clinical observation and for acquiring practical medical, surgical, and obstetrical skill are only to be found in the midst of a dense population. We imagine that, theoretically, nothing can be more perfect, according to the notions of the out-of-town hos-

pital advocates, than Oxford or Cambridge. It is hardly likely that "St. Thomas's-in-the-fields" will ever concentrate so many advantages as our old University towns. Yet what Oxford or Cambridge man is there who does not feel the absolute necessity of studying medicine in London? And an hospital without students! How could it possibly work?

But whilst we contend that all experience is in favour of town hospitals, it may be freely admitted that there is a grain of truth in the argument of those who ask to carry St. Thomas's bodily into the country. That grain of truth would justify the expenditure of a moderate portion of the large sum at the disposal of the institution in erecting a convalescent hospital or sanitarium to accommodate one hundred, or even two hundred invalids. It deserves the most anxious consideration whether persons suffering from lingering or incurable diseases, such as phthisis, paralysis, or cancer, might not there find refuge and medical treatment. But such an institution must necessarily be an appendage to the main hospital in London. And it would be better placed at the sea-side than in a suburb.

The question remains, Where shall the new hospital be raised? The answer is not difficult to anyone who knows London and the wants of the poorer classes. On the north side of London—partly because it was earlier occupied by a large population, but partly because it is the abode of a larger proportion of the wealthy classes, who are not averse to the spectacle presented by the architectural embodiment of their charity—hospitals abound, and the beds do not fill. But on the south side of the river there are but two general hospitals. Both these are close together, on the very edge of the water, leaving an immense tract densely populated at a distance from all hospital succour. The great need, the obvious indication, is to distribute the hospitals as fairly as possible. The opportunity of choosing a new site for St. Thomas's is a precious one. Where can a better situation be found than in Lambeth, say near Vauxhall-bridge? It is a great centre of traffic by railway and by road, of manufactures, and of an industrial and growing population. Seventy square miles of soil in the southern division of the metropolis are occupied by more than 770,000 souls. Quite half of this huge mass of toiling citizens are placed at a great disadvantage as regards hospital aid. To suppose that the frequent accidents and acute diseases arising in so vast a population can be adequately relieved by an hospital out of town, is sheer mockery and madness. The founders of the hospital, who selected the Borough when the population did not reach a tithe of its actual extent, were wiser. It behoves those who now undertake to represent and to carry out the intentions of the founders to reflect well before depriving half a million of people of their inheritance.

IN concluding our remarks upon the subject of "Compulsory Vaccination," we may first recall to mind that in our previous observations we endeavoured to show that because variola is not *totally* under the control of vaccination, and that a minimum proportion of vaccinated persons may take small-pox, and even a few of this number die from it, such circumstances do not constitute a valid reason why the theory of JENNER should not be carried into practice. We have maintained, on the contrary, that the going through vaccinia does in the case of the majority of people save the latter from the dangers and deformities of small-pox. If by the former variola cannot be actually extirpated, it must be clear to every unprejudiced mind that its virulence is most wonderfully mitigated. Even supposing the practice of vaccination were attended by drawbacks peculiar to itself, it cannot but be admitted that, against small-pox, cow-pox is eminently protective. And so clear is this, indeed, to many of the antagonists of "compulsory vaccination," that they defend themselves upon other grounds. They assert, to use the words of Mr. GIBBS, that "the operation itself affects injuriously the whole of after-life," and that "this is a sorrowful but too well-known fact, against which it "is useless to oppose a simple denial." They maintain that the poison-germs of syphilis, of spedalskhed, of rheumatism, of the exanthemata generally, of cutaneous diseases, and even of the scrofulous and tuberculous dyscrasiæ, not only may be, but constantly are bestowed in conjunction with the vaccine virus. To them the mere local operation also seems fraught with danger, as erysipelas, sloughing, indolent and rodent ulceration, &c., are only too likely to follow the puncture through the skin. In meeting this statement, we must adopt an argument similar to that we used in answering the former objection—viz., that there is a minimum number of persons who run certain risks in being vaccinated, and of whom a few may severely suffer, but that the majority escape all such drawbacks, and reap only the advantages of the plan. Hence vaccination, viewed in this light, must be admitted to be what it professes to be—namely, a benefaction to our race. Under most circumstances, the benefit of the many is attained only through the hardship of the few. We have no more desire here to deny that, by vaccination, occasionally a constitutional malady like syphilis may be bestowed, or the puncture on the arm degenerate into a rodent ulcer, or the vaccine pustule be followed by secondary rashes, than we had before that variola ever ensues after vaccination. Our own experience, as well as that of others, tells us the contrary. Nay, we were so far from wishing to disguise the truth, that we purposely published in the same number our first article upon the subject of Compulsory Vaccination, and an account (from the *Gaz. della Assoc. Med.*) of more than forty children to whom it was supposed syphilis had been conveyed through the medium of the vaccine virus. We had no desire for the concealment even of such a lamentable case as that, so surely satisfied were we that our general position was sound. Being so satisfied, we are deaf alike to the statement that all sorts of constitutional vices would necessarily be conveyed from child to child in most cases, and to that which asserts that whatever might be the disease from which a child furnishing the vaccine matter suffered, such disease could never, under any circumstances, be conveyed to another, any more than (according to Mr. SIMON) vaccination could communicate a Roman nose or a landed estate. The question is, however,—supposing that a morbid potency like that of syphilis may be conveyed upon the point of the vaccinating lancet, that the wound may ulcerate, slough, or become a permanent source of inconvenience, that erysipelas may ensue and carry off the patient, or that some secondary rashes may make their appearance,—in what proportion of instances do these things occur, and with what severity? Is their frequency so great, and are their consequences so severe, that they must be fairly held to antagonize whatever antivarioloid virtues vaccination may possess? Now what honest mind could maintain the affirmative? Why, the number of doubtful cases of such occurrence is, as in the former question of the

argument, an extremely small one; whilst those fairly to be granted as true instances form a minimum indeed! If so, then, and the protective power of vaccinia against variola be admitted, these new arguments against compulsory vaccination must fall to the ground. But it should be remembered that many experienced authorities would deny that even the exceptional occurrences we have admitted may arise. Mr. MARSON writes to Mr. GIBBS—

"You would hardly, I suppose, if the law were in your hands, leave all persons to take small-pox in the natural way and die as they do at 35 per cent. If not, and you inoculate them for small-pox, you would have the same chance of syphilis as at present from vaccination: mind, I do not say that there is any chance of it, because, not having seen it in fifty thousand vaccinations, I do not believe in its being so transferred." *

Mr. LEESE (of the National Vaccine Establishment), who has vaccinated perhaps more persons even than Mr. MARSON, has never seen struma nor rash of any sort produced. Further, Dr. SEATON tells us that Mr. MARSHALL, formerly of Knighton, Herefordshire, who with his predecessor in practice has kept an accurate register of all vaccinations performed by them from the year 1805, never met in nearly six thousand vaccinations with anything of the kind; this, too, in a country district where it was scarcely possible that any anomaly should have occurred without its being known.†

Abroad, MM. GUERSANT, BLACHE, and TAUPIN maintain that the vaccine virus cannot communicate aught but vaccinia. All that this school will admit is that an impure lymph may have certain injurious consequences of its own,—giving rise, upon the one hand, to local irritation, bad sores, wounds, &c., and their sequelæ; and, on the other hand, to imperfect protection against small-pox. Further, it would generally agree, we presume, with Dr. SEATON, when he says that these latter events

"Ought really never to occur; and that which it specially imports the public thoroughly to understand is that they are not the results of the due performance of vaccination, but the results of its improper performance; that they are perfectly avoidable, and that they constitute therefore a reason for care in the performance of vaccination, but no objection whatever to the operation itself."

We think, however, that there is now sufficient evidence before the public to show that *occasionally* a constitutional virus other than vaccinia is communicated by the operation of vaccination. The instances are quite exceptional, however; and when we reflect upon the vast number who undergo it, they are almost inappreciable in amount. When we bear in mind what a great benefit that number obtains, the force of the exceptions sinks into nothing. The number of the exceptions even is, no doubt, capable of yet considerable diminution, if proper care be exercised in examining the children from whom the vaccine matter is taken, and the condition of the children to be vaccinated. Had such been done ere the lymph was sent to Rivolta, and which was used in vaccinating GIOVANNI CHIABRERA, who afterwards became the source of the misfortunes we recently recorded as having taken place in a village of Piedmont, two score of children would have gone scathless. It is not unlikely also that a still further diminution might be made by the vaccinator using caution, when taking away the lymph by the lancet, that hæmorrhage do not ensue, and that the blood of the child be not mingled with the virus. M. ROLLET, one of the most recent writers† upon the transmission of syphilis by the operation of vaccination, maintains the opinion, that it is not the vaccine matter itself, but the "peri-vaccinal blood," which conveys the syphilitic poison-germ; and that which holds good with regard to the potency in question holds good with respect to all morbid germs.

"The transmission of syphilis," writes M. Rollet, "by vaccination is, then, only one of the various methods of the propagation of the former by means of the blood. Admit the hereditary communication of syphilis from the mother to the child, and admit also the inoculation of the disease by the vaccinal operation, then, so far as relates to the contagious agent, it is all the same. Belief simply in the contagious property of the blood necessitates the whole consequence.....If the opponents of vaccination should find in the facts we have just related arguments against the more extensive use of this wonderful preservative, we should reply that really the vaccine humour is innocent of the evils laid at its door. Further, is it not sufficient to be upon our guard, in order to prevent fresh misfortunes, that henceforth we refuse to vaccinate with a virus taken from syphilitic subjects? All this is only a question of the simplest hygiene."—p. 372.

No doubt the history of the recent occurrence at Rivolta goes to modify some of M. ROLLET's views. They are worthy, however, of deep consideration both in a pathological and a hygienic aspect. As regards the catalogue of miseries which prejudice and ignorance assert is constantly to be found following as a consequence of vaccination, upon it we cannot waste words.

WHEN the students attached to the various hospital schools of London proposed to organize themselves into a general Society for mutual instruction and friendly intercourse, they were encouraged by the cordial assistance of their teachers, and had our active support. No design could be more useful, or reflect greater credit upon themselves. Young men cannot too early in life accustom themselves to the interchange of knowledge, the cultivation of professional friendships, and the conduct of public meetings. The business of a social or scientific Society must be governed by definite rules, which impose a certain restraint upon the members, and train them in the exercise of those habits of self-possession and of temperate behaviour which are essential to a man's success in the world. That the Junior Medical Society has already been of great service in this respect we well know. But at its last meeting, held at the London Hospital, a scene occurred which clearly proves that the members, or some of them, still require practice in the conduct of the business of a Society. We are informed that the committee paid the lecturers of the hospital the compliment of inviting them to attend the meeting, and to take part in the proceedings. One of them—a gentleman not less distinguished by his acquirements than by his urbanity and cordial feeling towards students—addressed the meeting, the subject being one which no one is more capable of illustrating. He was interrupted by the Chairman, who told this invited guest that he was thrusting himself upon the meeting, and used other expressions inconsistent with the usages of public societies. So strongly was this strange behaviour resented by the pupils of the hospital that, in indignant sympathy with a

* A Brief Statistical Answer, &c., *ut supra*, p. 18.

† On the Protective and Modifying Powers of Vaccination. By E. C. Seaton. London: Richards. 1857.

† Recherches Cliniques et Expérimentales sur la Syphilis, &c. Paris, 1861.

teacher they had been accustomed to respect, they withdrew in a body from the general Society. This schism is deeply to be regretted. It is important for the credit of the Society, and we are sure it will be demanded by the unanimous voice of the members, that the dispute should be healed. We do not see how this can be effected with dignity and satisfaction, except by a frank avowal of error on the part of the Chairman. If this be made, there can be no difficulty in reconstituting the Society on a footing that will earn for it and its individual members the respect of their teachers and of the profession. The matter may safely be left to the good sense and the good feeling of the members at large.

Medical Annotations.

"Ne quid nimis."

LEGAL ARSENICAL POISONING.

"THERE is no sure foundation set on blood;" nor can any system of trade be justly established which systematically preys on the life of the artisans who earn the profits for their employers. The habitual empoisoning of the young persons engaged in flower-making, by the inhalation of the powder of arsenite of copper used for colouring the green leaves and buds, has been the subject of frequent investigation, and of open warning in these pages. Public attention has been directed to the dangerous results of using the arsenical pigments in industrial processes of various kinds, and on this of flower-making the most emphatic condemnation has been authoritatively pronounced. In a paper by Dr. Hassall on the "Danger of Using Arsenical Green in Artificial Leaves and Flowers," (THE LANCET, vol. ii. 1860, p. 535,) the symptoms affecting the leaf-makers—nearly two hundred in number—employed in using this poisonous substance are minutely described. "The condition of these people," says Dr. Hassall, "mostly young women and girls, but including some men and boys, is wretched in the extreme. They all labour, and many in a severe form, under symptoms of arsenical poisoning. The poison is diffused throughout the atmosphere they breathe, and is of course inhaled; further, it acts as a local irritant and escharotic on the hands and other parts of the body to which it becomes mechanically applied. The symptoms may be arranged into the constitutional and local: the former consist of general derangement of the health, debility, nervousness, headache, thirst, sickness, loss of appetite, and diarrhœa; the latter in soreness of the throat and gums, œdema about the eyes, soreness of and running from the nose, and in ugly-looking sores on the hands, face, neck, and other parts of the body to which the poison finds access." Then follows the account of cases of arsenical poisoning from this cause under treatment at the Royal Free Hospital.

Now it is certain that these evils are as gratuitously inflicted as they are intolerable to bear; for in France, where the use of such pigments has been long since abandoned, the flower-makers successfully rival us in the brilliancy of their tints. Nevertheless no abatement of this system of legalized poisoning has taken place here. In the cases described by Dr. Hassall the poisoning was already far advanced. He says, "There were eight young women and two boys working in the same room with the men whose cases have just been described, and they were all affected much in the same way. They all had sores; the girls, at the back of the neck, on the sides of the nose, and on the hands; their eyes were also affected, and there was running from the nose. To such an extent was their health affected, that they were compelled from time to time to give up their work and return home."

But in the case of a young woman named Matilda Scheurer, a good-looking girl of eighteen, the poisoning went on to produce death. She had for a year and a half been suffering more or less from the use of the poison, and at last she died a death of great agony from its effects. At the inquest held by Mr. G. S. Brent, the surgeon proved that the lungs, the liver, and, in fact, the tissues generally, were impregnated with arsenic; and that the cause of death was the characteristic acute inflammation of the lining membrane of the intestinal tube caused by arsenite of copper. Mr. Bergeroud, the employer, said he employed ninety-eight girls in his establishment, and for their protection he had suggested the wearing of masks, but it was objected to by them as producing excessive heat. They, however, wore muslin over their mouths. The wearing of masks or muslin, however, is a precaution of the most imperfect and inefficient character. The minute particles which float in the air are not arrested by such means. The use of this poison is unnecessary, and it should be rendered criminal here as it has been lately in France. The jury returned a verdict to the effect that the deceased died accidentally from mortal disease in her stomach and other organs, occasioned by arsenite of copper used in her employment. As a comment on this verdict, and as affording a suggestion for the better regulation of this matter, we may quote a verdict recorded in THE LANCET of Feb. 16th, 1861, by which an employer causing a workman to use some arsenical green pigment for flower-colouring was condemned to fourteen days' imprisonment and three hundred francs damage, in respect of an eruption on the face and hands which it caused. We hope that this may convey a hint for the improvement of our criminal law.

HIPPOPHAGY.

THERE are, perhaps, few who can boast of the strong appetite and excellent digestion of the Doves, father and son, of whom their biographer tells us that "they would have eaten squab-pie in Devonshire, and the pie which is squabber than squab in Cornwall; sheep's head with the hair on in Scotland, and potatoes roasted on the hearth in Ireland; frogs with the French, pickled herrings with the Dutch, sour-krout with the Germans, maccaroni with the Italians, aniseed with the Spanish, garlick with anybody; *horse-flesh with the Tartars, ass-flesh with the Persians*, dogs with the North-Western American Indians, curry with the Asiatic East Indians, birds' nests with the Chinese, mutton roasted with honey with the Turks, pismire cakes on the Orinoco, and turtle and venison with the Lord Mayor." Those whose catholic taste spans over this wide range of alimentation may find the materials for its indulgence brought for the most part near home. There are some who could eat all and thrive on all; nevertheless, it is difficult not to show a preference for—say, the turtle and venison. M. Geoffroy St. Hilaire, whose recent loss the scientific world have so much reason to deplore, made great efforts to cultivate amongst Europeans that taste for horse-flesh and ass-flesh which is here ascribed to the Tartars and Persians, and which Virgil attributed to the Getæ and Scythians. His success, we fear, was but indifferent; but it is plain that he has left many disciples. We hear from Algiers that, lately, a considerable number of high public functionaries, superior military officers, judges, and clergy, partook, in the saloon of the theatre, of a great banquet, the principal part of the dishes of which was composed of horse- and ass-flesh. The object in getting up the feast was, to combat the popular prejudice against such food. The different dishes were dressed in the French style, and declared excellent: one of them consisted of a young ass, roasted whole. After the dinner, suitable toasts and speeches were delivered. One of the latter was by M. Decroix, veterinary surgeon of the 1st Mounted Chasseurs, who maintained that horse flesh is very nutritious, and that the general adoption of it as an article of food would present many advantages. Testimony such as this will not be without weight; although we do not see any economical source of sup-

ply of tender young horses for the food market, and we apprehend that worn-out old animals would not be very edible or easily masticated. At least the experience acquired by the celebrated exploits of Alderman Scales shows that the flesh of young asses, properly prepared, may be purchased and eaten in mistake for veal. As to the flavour and nutritive qualities of the flesh of young horses and asses, there is, perhaps, little to be said against them, since, when the mind is not prejudiced by foreknowledge of their nature, the meat has very frequently been eaten and relished well, without the discernment of any unpleasant quality. So that

> "If anything be set to a wrong taste there,
> 'Tis not the meat, but the mouth 's displaced;
> Remove but the sick palate, all is well."

The practical question connected with hippophagy is that of economical supply, and we are not aware that this can be satisfactorily resolved.

SCIENTIFIC REWARDS TO PHYSICIANS.

THE life-time of labour which Dr. Carpenter has bestowed on physiological science will meet with a public recognition in the bestowal of one of the Royal Medals at the disposal of the Council of the Royal Society at the approaching meeting. The immediate reasons set forth for the award are Dr. Carpenter's well-known researches on the Foraminifera, and on the Structure of Shells, as well as continued physiological research. The services of this physician to physiological science are, however, by no means confined to the range of his original observations on particular points. He has rendered the most important aid to the students of human and comparative physiology by employing for their benefit his singular powers of condensation, arrangement, and philosophical exposition, in setting forth the actual condition and progress of that department of knowledge during many years. His capacity in arranging, analyzing, and expounding the complex observations and theories of the very numerous savans who pursue these investigations in all countries, almost amounts to genius; and in employing it with unwearied industry and integrity, Dr. Carpenter has rendered conspicuous services to the cause of medical education. This and the other Medals will be presented by Sir Benjamin Brodie, who will at the same time deliver his address in taking leave of the Society, after three years of a presidency which he has filled with the highest honour and credit to himself and the profession. Dr. Edward Smith has also been justly rewarded for his labours by the Society of Arts, which awarded him a Silver Medal for his two excellent papers, "Recent Experimental Inquiries into the Nature and Action of Alcohol as Food," and "On the Uses of Tea in the Healthy System."

THE MEDICAL REGISTER AND MEDICAL FEES.

A NEW trial has been asked for in one of the cases recently tried, and reported in these columns at the time, in which it was decided, in effect, that necessity for registration applied even to cases prior to the passing of the Act. The application was made in the case of Wright *v.* Greenroyd, in the Court of Queen's Bench, before Lord Chief Justice Cockburn and Justices Wightman and Blackburn.

"In this case a rule had been obtained calling upon the defendant to show cause why the nonsuit in this case should not be set aside, and a new trial granted. The action was brought in this Court to recover the sum of £21, which the plaintiff claimed in respect of services rendered and medicines supplied by him as a surgeon and apothecary. After issue was joined, an order was made by the Lord Chief Justice, under the 20th sec. of 19 and 20 Vict., cap. 108, directing that it should be tried in the Halifax County Court. The case came on for trial, when the plaintiff was called upon to prove that he was a registered practitioner under the 32nd sec. of 21 and 22 Vict., cap. 90, by which it was made a condition precedent to the right to recover. In this case the plaintiff had retired from practice. The debt was incurred before the passing of the Act.

"Mr. Manisty, Q.C., showed cause against the rule. He contended the Act in question had a retrospective operation. Whether in or out of practice, registration was necessary to entitle a medical man to recover.

"Mr. Justice Wightman.—If a man ceases to practise in 1858, can he not recover for services rendered in 1857?

"Mr. Manisty contended that, however hard it might appear, the Act expressly stated that registration was a condition precedent.

"Mr. Justice Wightman.—We must give a reasonable construction to the Act.

"The Lord Chief Justice.—The object of the Act is to get every medical man to register, and in order to do so it was made a condition precedent to the recovery of his fees in a court of justice that he shall be on the Register. It was surely never intended that the Act should apply to cases prior to the passing of the Act.

"Mr. Manisty admitted there was some difficulty about the case.

"The Lord Chief Justice.—The Legislature by its omnipotence might have made it compulsory on such a person to register, but it would have been very unjust towards him. The rule must be made absolute.

"Mr. Maule said the Court of Exchequer had decided a similar case in the same way as their lordships.

"Rule absolute accordingly."

MEMORIAL TO LORD HERBERT.

MEETING AT WILLIS'S ROOMS.

THE long-announced meeting to promote the public memorial of the great services which the late Lord Herbert rendered to the cause of medical reform in the army, and to the improvement of the health of the British soldier, was held on Thursday last, under the most distinguished auspices. His Royal Highness the Duke of Cambridge, as professional head of the army, occupied the chair, and he was supported by Lord Palmerston, Earl Russell, Earl Granville, the Duke of Newcastle, Mr. Gladstone, General Peel, and nearly all the leading members of the present and late administrations, as well as the *élite* of the military profession. A more illustrious assembly has rarely met, combining, as it did, men of all parties and opinions, to do homage to the statesman whose labours have reduced the mortality of the British army by one-half, and who has raised the medical profession to a position in the military ranks which brings the whole resources of medical art to bear upon the prolongation of life and the preservation of health amongst the soldiers.

After a few appropriate words from the Duke of Cambridge, the first resolution, affirming the great services rendered to the army and the country by Lord Herbert, was moved by Lord Palmerston, who bore an earnest testimony to his personal virtues, and to the singular earnestness and devotion with which he gave himself to the work of reforming the sanitary condition of the army.

General Peel, in seconding the resolution, testified that even after the withdrawal of Lord Herbert from office he laboured incessantly for this object; and that, as his successor, he himself had habitually and most usefully taken his opinion and advice on all matters relating to the health and recreation of the soldiers, and the organization of the medical department.

The Chancellor of the Exchequer then moved the second resolution, to the effect that the funds collected should be devoted—first, to the erection of a statue to Lord Herbert; and, secondly, to the establishment of a scholarship or scholarships at the Army Medical School, Chatham, to be held by the most deserving amongst the candidates for assistant-surgeoncies in the army at the completion of the first year's course. Mr. Gladstone, in a speech of great power and eloquence, enumerated the variety and extent of Lord Herbert's labours, dwelling upon the results produced by the Sanitary Commission in increasing the efficiency of the army medical staff, in reforming barracks and habitats, and in procuring the publication of the vital statistics of the army. Mr. Gladstone quoted the statement of Dr. Farr that the per-centage of deaths in the army is reduced already by the labours of Lord Herbert, and that the lives of a whole battalion of men are annually saved to the country by the improvements in the medical organization.

Sir John Burgoyne seconded the motion.

The other formal resolutions were moved by the Bishop of Oxford and the Duke of Newcastle, and seconded by Earl de Grey and Lord Robert Grosvenor.

The appropriation of the funds to this purpose will be hailed by the medical profession with the greatest satisfaction, and in the encouragement thus offered to the medical officers of the army, they will see an emphatic endorsement of the views of Lord Herbert in their favour, and a promise that the retrogressive policy apparently adopted by Sir Cornewall Lewis does not meet with the approval of the Government.

THE

ANALYTICAL SANITARY COMMISSION.

RECORDS OF THE RESULTS OF

MICROSCOPICAL AND CHEMICAL ANALYSES

OF THE

SOLIDS AND FLUIDS

CONSUMED BY ALL CLASSES OF THE PUBLIC.

ON THE ADULTERATION OF PICKLES, BOTTLED FRUITS & VEGETABLES.

THE remarkable effect of most salts of copper in intensifying and rendering permanent the green colour—chlorophyll—of vegetable substances is well known.

This effect is doubtless one of the causes which has led to the general employment of copper vessels in the cooking and preparation of most vegetables and fruits.

In the case of Pickles, no direct addition of copper is in general made, the requisite amount of that metal being obtained through the solvent action of the vinegar upon the copper pans in which the vinegar and pickles are boiled.

When Preserves and Jams are prepared in copper utensils, the same action on the copper, through the organic acids of the fruits, occurs, though to a much less extent; and in some instances a salt of copper is directly added, more particularly to greengage jam, in order still more to heighten the colour.

But in the preparation of Bottled and Preserved Fruits and Vegetables, these substances do not come in contact with any copper utensil; the bottles or metal canisters are at once filled with the articles to be preserved; so that when these have been rendered green with copper, no accidental circumstance can properly account for its presence.

The salt usually employed is the sulphate of copper, commonly called *blue vitriol;* it is dissolved in the liquor added to the bottles or tin cases after these have been filled with the fruit or vegetable to be preserved.

The object of the following analyses is to show to what extent the above most objectionable practice still prevails, and how far the bottled and preserved fruits and vegetables, including pickles, are rendered unwholesome, and in some cases even poisonous, by the presence of copper.

RESULTS OF THE CHEMICAL EXAMINATION OF THIRTY-THREE SAMPLES OF BOTTLED AND PRESERVED FRUITS AND VEGETABLES.

BOTTLED FRUITS AND VEGETABLES.

GREENGAGES.

1st Sample.

Purchased at the establishment of—Messrs. Batty and Co., 15 and 16, Pavement, Finsbury.
Coloured with *copper.*

2nd Sample.

Purchased at the establishment of—Mr. Thomas Snelling, 30, Fenchurch-street.
Free from copper.

3rd Sample.

Purchased at the establishment of—Messrs. Burgess and Son, 107, Strand.
Contains *copper.*

4th Sample.

Purchased at the establishment of—Messrs. E. Lazenby and Son, 6, Edwards-street, Portman-square.
Free from copper.

5th Sample.

Purchased at the establishment of—Messrs. Frost and Sons, 22, Charlotte-street, Fitzroy-square.
Free from copper.

6th Sample.

Purchased at the establishment of—Mr. Ward, 34, Frederick-place, Hampstead-road.
Coloured with *copper.*

7th Sample.

Purchased at the establishment of—Mr. J. Hawes, 37, Frederick-place, Hampstead-road.
Coloured with *copper.*

GOOSEBERRIES.

8th Sample.

Purchased at the establishment of—Messrs. Wix and Son, 22, Leadenhall-street.
Contains much *copper.*

9th Sample.

Purchased at the establishment of—Mr. R. Colsell, 98, Bishopsgate-street Within.
Contains very much *copper.*

10th Sample.

Purchased at the establishment of—Messrs. Neighbour and Sons, 127, High Holborn.
Free from copper.

11th Sample.

Purchased at the establishment of—Messrs. Crosse and Blackwell, 21, Soho-square.
Free from copper.

12th Sample.

Purchased at the establishment of—Mr. Howgate, 9, Tottenham-court-road. Labeled "Messrs. Lewis, Watkins, and Co., Worcester."
Deeply coloured with *copper.*

RHUBARB.

13th Sample.

Purchased at the establishment of—Mr. Jones, 224, Tottenham-court-road.
Contains much *copper.*

PICKLES.

14th Sample.

FRENCH BEANS.

Purchased at the establishment of—Messrs. Crosse and Blackwell, 21, Soho-square.
Free from copper.

15th Sample.

Purchased at the establishment of—Messrs. Wix and Son, 22, Leadenhall-street.
The contents of this bottle are for the most part *free* from copper; but a few beans occur of a green colour, and which contain *copper.*

16th Sample.

Purchased at the establishment of—Messrs. E. Lazenby and Son, 6, Edwards-street, Portman-square.
Contains *copper.*

17th Sample.

Purchased at the establishment of—Messrs. Burgess and Son, 107, Strand.
Free from copper.

GHERKINS.

18*th Sample.*

Purchased at the establishment of—Messrs. Batty and Co., 15 and 16, Finsbury-pavement.
Rendered green with much *copper*.

19*th Sample.*

Purchased at the establishment of—Mr. George Snelling, 30, Fenchurch-street.
Contains *copper*.

20*th Sample.*

Purchased at the establishment of—Messrs. Neighbour and Son, 127, High Holborn.
Contains a little *copper*.

INDIA PICKLES.

21*st Sample.*

Purchased at the establishment of—Mr. Charlton, 198, Piccadilly. Labeled "West India Pickles, imported by E. Lazenby and Son, 6, Edwards-street, Portman-square."
Highly coloured with much *copper*.

MIXED PICKLES.

22*nd Sample.*

Purchased at the establishment of—Messrs. Frost and Sons, 22, Charlotte-street, Fitzroy-square.
Coloured with *copper*.

23*rd Sample.*

Purchased at the establishment of—Mr. J. T. Burton, corner of Henry-street, Hampstead-road. Labeled "G. Wybrow, Royal Mint-street, London."
The beans in this sample are rendered green with *copper*.

PRESERVED VEGETABLES.

PEAS.

24*th Sample.*

Purchased at the establishment of—Messrs. Fortnum and Mason, 182, Piccadilly.
Coloured with *copper*.

25*th Sample.*

Purchased at the establishment of—Messrs. T. and H. Morel, 210, Piccadilly. Labeled "Petits Pois Fins. Maison Joret, Blanstier et Fontaine, Paris."
Free from copper.
Ash of a reddish colour, owing to the presence of much *iron*, derived from the metallic case in which the peas are preserved.

26*th Sample.*

Purchased at the establishment of—Messrs. Howis and Masson, 216, Piccadilly. Labeled "Thre. Rolland au Mans."
Free from copper.

27*th Sample.*

Purchased at the establishment of—Mr. A. V. Ferre, 1, Marylebone-street, Regent-street.
Coloured with *copper*.

28*th Sample.*

Purchased at the establishment of—Messrs. Crosse and Blackwell, 21, Soho-square.
Free from copper.

HARICOTS VERTS.

29*th Sample.*

Purchased at the establishment of—Messrs. Fortnum and Mason, 182, Piccadilly.
Highly coloured with *copper*; ash containing *iron*.

30*th Sample.*

Purchased at the establishment of—Messrs. Howis and Masson, 116, Piccadilly. Labeled "Rodel et Fils, Bordeaux."
Deeply coloured with *copper*.

31*st Sample.*

Purchased at the establishment of—Messrs. T. and H. Morel, 210, Piccadilly. Labeled "Blanstier et Fontaine, Paris."
Free from copper.

32*nd Sample.*

Purchased at the establishment of—Mr. A. V. Ferre, 1, Marylebone-street, Regent-street.
Contains much *copper*.
Ash highly coloured from the presence of both *copper* and *iron*.

MIXED VEGETABLES.

33*rd Sample.*

Purchased at the establishment of—Mr. A. V. Ferre, 1, Marylebone-street, Regent-street.
The *peas* and *beans* contained in this sample are highly coloured with *copper*.

From an examination of the preceding analyses it appears—

That of the *seven* samples of *greengages* examined, *four* were coloured with *copper*, while *three* were uncoloured and free from that metal.

That of the *five* samples of *gooseberries* analyzed, *three* contained much *copper*, and in *two* only was it absent.

That the sample of *rhubarb* also contained *copper*.

That of *ten* samples of *Pickles*, including *French beans*, *gherkins*, *mixed pickles*, and *West India pickles*, *copper* was found in *seven*, and but *three* were uncontaminated with that metal.

That of *five* samples of *preserved peas* tested, *two* contained *copper*.

That of *four* samples of *French* or *haricot beans*, *three* were highly coloured with that metal, which was also largely present in a sample of *mixed vegetables*.

Thus of *thirty-three* samples analyzed, *copper* was present, frequently in considerable amount, in no less than *twenty-one* of the samples, or in *nearly two-thirds*.

This result we regard as most disgraceful. The practice of colouring vegetable substances intended to be used as articles of food some years since was fully exposed in a Report of the Analytical Sanitary Commission, and there is no excuse for a persistence in it whatever. The bottled and preserved fruits and vegetables, as already explained, do not come into contact with copper at all, and when, therefore, that metal is found in them there is every reason to believe that the addition has not been accidental. Further, in the case of pickles, there is no necessity whatever that they should be prepared in copper utensils, as iron ones answer the purpose sufficiently well.

True, the pickles thus prepared are less green; but surely the fact of their being of better flavour and much more wholesome ought to be more than enough to counterbalance this trifling disadvantage. The blame in this case rests mainly with certain of the manufacturers and preparers of these articles; if these would resolutely set their faces against the practice it would soon be at an end. It should be known that the addition of copper to any vegetable substance used as an article of food is a violation of the recent Act for the Prevention of Adulteration, and exposes the parties to prosecution.

Nearly all the vegetables preserved in metallic cases contained much iron, the presence of which is due to the construction of the so-called tins, which consist of sheet-iron covered with a thin coating of tin, and which in places is frequently defective, thus allowing of the action of the acid juices upon the iron.

Two of the samples—one of peas, and the other of beans—were specially tested for tin, but not a trace of that metal was discovered.

Correspondence.

"Audi alteram partem."

PROPAGATION OF TYPHOID FEVER.

To the Editor of THE LANCET.

SIR,—In the complimentary notice with which you have honoured my papers on the Propagation of Typhoid Fever in your very able leader of last week, you have referred to them in terms which are likely to convey to all who may not have read them a very erroneous idea as to their object.

From the general tenour of your remarks everyone would conclude that the chief aim of these papers was to prove that the fever in question is propagated only through the medium of tainted drinking water. Nothing can well be wider of the

fact. In the very first of the series (THE LANCET, Dec. 6th, 1856, p. 617) it is expressly laid down that the air is a principal medium for the diffusion of the specific poison which the diseased intestines cast off, and various details are given to show how widely this mode of diffusion operates. Of the numerous fever outbreaks discussed in succeeding papers, there are only two in which there were any facts to indicate that the poison was distributed by the drinking water. I may add that I have in my possession a large body of decisive evidence to show that the cases in which fever is communicated by water are numerically quite insignificant in comparison with those in which it is communicated by poisoned air.

If I have apprehended rightly the drift of your article, your principal objection to the contagion theory is that it is "exclusive." But because a theory happens to be exclusive is no reason whatever that it should be untrue. It is all but universally believed, for instance, that plants and animals were created once for all, and are propagated now only in one way—i. e., by lineal descent. This is a very exclusive theory, but it is nevertheless, I fancy, a perfectly true one. A small minority, indeed, still hold that some plants and animals, although endowed with powers of self-propagation, are constantly springing up anew also. This is a much less exclusive and much more comprehensive theory than the other, but unfortunately there are abundant reasons for concluding that it is not a true one.

In past attempts to interpret the phenomena of nature, cases without number have already come to light, in which the most complex results have been traced to the action of a single principle. To demonstrate this is, in every such case, to find the true theory—a theory which, I may observe, is, by the very conditions, true, *precisely because it is exclusive*.

In the surpassing importance of pure air and pure drinking water as conditions of health, we are, I suppose, all agreed. For my own part, I will not yield to the most ardent sanitarian in my zeal for these great safeguards. But, for the emergency of actual fever, I have specific measures to propose, which come nearer to the root of the evil. By treating the intestinal discharges, and everything imbued with them (including the hands of attendants on the sick), with proper disinfectants, I endeavour to stay the spread of the malady by destroying the very seed from which it springs.

Not theory only, but actual experience,—extending now over nearly twenty years,—has satisfied me of the sovereign efficacy of this mode of prevention. Were it universally practised, with the skill and intelligence which such a proceeding requires, I will venture to say that the cases of typhoid fever in England, which average now about a hundred and fifty thousand annually, with fifteen or twenty thousand deaths, would soon be cut down to a very low figure.

I trust, Sir, that this method, which is so simple, and which recommends itself so strongly to common sense, will have the support of your powerful pen in any future articles which you may write on this subject.

I am, Sir, your obedient servant,

Lansdowne-place, Clifton, Nov. 1861. WILLIAM BUDD, M.D.

ALBUMINOUS URINE.

To the Editor of THE LANCET.

SIR,—Your correspondent of the 16th inst. will find in Dr. Golding Bird's work on "Urinary Deposits," p. 320, ed. 3rd, that the fact he mentions in his note relative to the non-precipitation of albumen from the presence of nitric acid in dirty test tubes is no novelty.

Dr. Bird says, "Albumen may be present, and yet escape detection, from using dirty test tubes; a small quantity of an acid or a little solution of potass or soda left in a tube will prevent the precipitation of albumen by heat from urine boiled in such a tube."—I am, Sir, your obedient servant,

King's Lynn, Nov. 1861. JOHN LOWE, M.D.

THE MEDICAL ASSISTANTS' BENEVOLENT ASSOCIATION.

To the Editor of THE LANCET.

SIR,—If the gentleman who signs himself "A Surgeon" in your last impression, and who kindly suggested the formation of local committees in order to extend the basis of the above Association, will send his name and address, with any further suggestions he may be pleased to make, to our secretary, J. C. Anderson, Esq., 7, Palsgrave-place, Temple, I have no doubt that they will meet with every consideration from the Committee of Management. I am sure it only requires the co-operation of a few such men as your correspondent, "A Surgeon," to make this Society universally known and supported by the large body of medical assistants residing in London and the provinces. We shall be glad, therefore, to hear from gentlemen possessing some influence in the large provincial towns who will assist us in our efforts to form local committees.

I remain, Sir, your obedient servant,

Bishopsgate-street Without, November, 1861. ALEXANDER ELLIS, Member of the Committee.

A NEW REMEDY.

To the Editor of THE LANCET.

SIR,—In the *Chemical News* of Sept. 21st, p. 158, there is an extract given from the *American Journal of Pharmacy* in which Herr Emile Heydenreich claims to be the discoverer of a new salt of iron—viz., the phosphate of the sesquioxide, soluble in a solution of citrate of ammonia.

I think it but fair to my friend, Mr. J. Lightfoot, jun., of Accrington-lane, to state, that more than two years ago he prepared in his own laboratory an iron salt identical with this. Finding, like Herr Heydenreich, that in addition to this salt being soluble in a solution of citrate of ammonia, it was also soluble in hydrochloric and nitric acid, Mr. Lightfoot thought it might be of considerable service to the medical profession. It was accordingly tried, but did not realize all the expectations of its talented discoverer. Mr. Lightfoot again instituted experiments, and at last succeeded in making a magnetic phosphate of iron—a salt somewhat similar in its composition to the phosphate of the sesquioxide, but, unlike it, much more soluble in either hydrochloric or nitric acid. Pursuing his experiments still further, Mr. Lightfoot found that *the* acid which most freely and readily dissolved the salt was the citric. The proportion of magnetic phosphate of iron which this acid *in solution* will take up is more than double that which is taken up by the solution of citrate of ammonia proposed by Herr Heydenreich; the proportion of the former being, if I remember rightly, forty-eight per cent., while that of the latter is only twenty-three per cent. You have thus a more active preparation, and one in which you can place greater confidence.

I may add that this citric acid solution of the magnetic phosphate of iron has been extensively prescribed in Lancashire. Its action in albuminuria, diabetes, and various forms of heart-disease is most striking; while, as a tonic, it can scarcely be surpassed. It does not precipitate with sy. aurantii like most of the iron salts; thus forming one of the most agreeable chalybeates imaginable. In proof of its physiological effects upon the system, the two following cases are adduced:—

E. C——, aged fifty-six, labourer, had for many years been afflicted with valvular disease of the heart, with hypertrophy of the organ itself. He suffered at times most frightfully from palpitation, and had not been able to do any work for the last three years and a half; the least exertion produced the most distressing effects; even walking across a room would render him completely helpless for several minutes. He was given five minims of the magnetic phosphate of iron three times a day; this was continued for a week, at the end of which he expressed himself as being vastly better. The treatment was pursued for a month, when the patient was able to resume his work, a thing he had not done for more than three years, as previously stated. The violence of the heart's action was greatly lessened; the man could walk six or eight miles a day without inconvenience, and gained considerably both in strength and weight.

S. H——, aged twenty-six, married, but no children, had since last March suffered more or less from severe pain in each renal region, œdema of the lower extremities, and general debility. The specific gravity of her urine was 1008, and was perfectly coagulable at a temperature of 200° Fahr. She was ordered the following mixture three times a day: solution of the magnetic phosphate of iron, six minims; iodide of potassium, one grain; water, one drachm. After the first eight doses of this medicine the quantity of albumen was diminished to nearly one-half, and on the seventh day from the commencement of the treatment there was not a trace of albumen to be found. The specific gravity of the urine was now 1021; the œdema of the limbs was fast disappearing; the patient had regained her appetite, and in three weeks from this date was completely convalescent. Instead of the pale, weak, and dropsical patient you saw a month ago, you had now before you a woman in the enjoyment of excellent health, able to perform her household duties, and expressing herself as "perfectly well."

Trusting, Sir, that you agree with me in thinking that the publication of the above letter will not only be an act of justice to Mr. Lightfoot, but also the means of making more extensively known a very valuable therapeutical agent,

I remain your obedient servant,

THOMAS LAWRIE GENTLES.

Regent-terrace, Sheffield, November, 1861.

METROPOLITAN ASSOCIATION OF THE MEDICAL OFFICERS OF HEALTH.

AT the meeting of the above Association on the 16th inst., Mr. W. WEATHERLY PHIPSON, C.E., read a paper, entitled

NOTICE ON DR. VAN HECKE'S SYSTEM OF WARMING AND VENTILATION.

The author, comparing the Van Hecke system with those already employed, arrives at the conclusion enunciated by Dr. Pettenkofer, of Berlin, and Drs. Maximillien, Vernois, and Grassi, of Paris, that Dr. Van Hecke's system is the only one which realizes efficient ventilation and uniform warming, combined with economy in the first outlay and in annual maintenance. "The system of Van Hecke," says Dr. Pettenkofer, in his recently published 'Remarks on Warming and Ventilation,' "has completely upset all our ventilation traditions." Mr. Phipson shows that this result has been attained by the application of scientific principles and mathematical calculations, by means of which the supply of air and the heat are completely under control. The author explained the whole details of the system, illustrating it by plans of the Chamber of Representatives at the Hague (Holland), the Hospital Necker of Paris, the Asile Impériale of the Verinat, and several other buildings warmed and ventilated on the Van Hecke principle, bringing forward at the same time abstracts from the French, Dutch, and Bavarian Governments relative to the system in question. The system appears extremely simple, the success of the operation depending rather upon the manner in which it is disposed than upon the apparatus itself. The fresh air is propelled along an air channel by means of a peculiarly shaped fan (patented by Dr. Van Hecke) into an air chamber containing a warming apparatus, where it is warmed and moistened, and whence it is distributed over the building. An anemometer and dynamometer, placed before the fan, indicate at any moment the amount of air supplied. The amount in hospitals is 2200 cubic feet per hour per patient (minimum); but it is capable of being doubled if required. This quantity of air is supplied without the least perceptible draft, and the thermometer indicating 60° Fahr. in all parts of the wards. The air is cooled in summer as it is warmed in winter. The vitiated air escapes through flues constructed for that purpose, each having free access to the external air. The author, in his description of the warming apparatus, showed that the waste heat of the smoke is completely utilized. The warm and vapour baths are also supplied by waste steam from the small engine working the fan. To economize heat in winter, the vitiated air escapes from that part of the room at which the temperature is lowest. The heating chambers vary according to the requirements of the building. Enclosed in each of these is the warming apparatus, consisting of a cast-iron cockle, from the summit of which issue a series of sheet-iron smoke flues, which, circulating four times round the cockle in the shape of a square conduit, convey the smoke to the chimney. To this is added a special vessel for moistening the air.

An animated and interesting discussion ensued, in which Mr. Chadwick, Dr. Sanderson, Dr. Thomson, Dr. Lankester, Dr. Greenhow, and others, took part. Mr. Phipson was congratulated upon having called the attention of the members to a system so valuable, and one that had already been tested by some of the ablest men of the day.

An admirable discourse was delivered by Dr. SANDERSON, in which he stated that the proofs in favour of the system were so evident, and from men of so high an authority, that no doubts could be entertained as to the superiority of the system over all others in operation; and at his request a committee was now sitting at St. Mary's Hospital, with the intention of adopting the system of Van Hecke in that building.

After an address from the President, the thanks of the meeting were unanimously voted to Mr. Phipson for his very able and valuable paper.

Mr. STEVENS exhibited a Model of his new Bread-making Machine, and dwelt upon the merits of the invention, of which the members of the Association expressed their approbation.

PARISIAN MEDICAL INTELLIGENCE.

(FROM OUR SPECIAL CORRESPONDENT.)

FOR many years past Professor Trousseau has been so constantly in the habit of referring in his lectures to the clinical teaching of the late Professor Graves in terms of enthusiastic admiration, that your readers will not be surprised to learn that a translation of the great Dublin physician's works is now passing through the press. The first volume of the series, rendered into French by Dr. Jaccoud, under the auspices of M. Trousseau, who supplies the introductory notice, is announced for sale by M. Delahaye, the publisher. The homage rendered to the eminent Irish physician by the first French therapeutist of the day, cannot fail to prove most gratifying to our brethren across St. George's Channel. "Graves," writes M. Trousseau, "is, as a therapeutist, full of resources. Not a day passes that I do not avail myself of some one of the methods of treatment he has so clearly described, or that I do not in my heart bear a grateful testimony to the value of the teaching he has bequeathed.....His powers of correct observation, his depth as a scholar, his ingenuity and skill in the management of disease, excite in his audience a feeling of love for that art, the sphere of which he has so successfully extended. His example has had the effect of rendering medicine more popular, by making it more useful and more effective."

I mentioned briefly in my last letter a case which was submitted to the Academy of Sciences by M. Ollier, of Lyons, in which the osteoplastic function of the periosteum had been turned to account for the repair of a dilapidated nasal bridge. M. Langenbeck, Professor of Clinical Surgery at Berlin, now brings forward a plan for the Academy's approval, in connexion with the restoration of the bony substance in cleft palate. This operation, which has been successful in two cases where the fissure extended from the incisor teeth in front to the extreme limit of the palate behind, consists in the detachment of two flaps of mucous membrane and subjacent periosteum on each side of the gap, and in their union by sutures. In both the instances referred to by M. Langenbeck, the vacant space was presently filled by a solid layer of bone.

I have before me a pamphlet from the pen of Dr. Jules Lemaire, in which the advantages of saponized coal-tar, in its therapeutical application, are very fully examined and weighed. It will be remembered, that in 1859, MM. Corne and Demeaux, under the auspices of M. Velpeau, instituted at the Charité and elsewhere, a series of experiments in order to test the antiseptic and cicatrizing powers of a mixture of coal-tar and plaster of Paris. This compound, it was maintained, cleansed offensive wounds and fetid ulcerations, diminished the chances of purulent infection, and accelerated the healing process. So, for a time, plaster and pitch were *à l'ordre du jour*. The performance, however, fell short of the promise in the programme, and we find M. Velpeau, in a report to the Academy of Sciences of Feb. 5th, 1860, administering a quietus to the half-fledged topical: "In spite of certain definite advantages," he says, "it has many drawbacks. The powder is dirty, ill-coloured, and stains the patient's linen. It hardens, and causes pressure on and around the wounds dressed with it. It stains the compresses also, and requires to be frequently renewed; moreover, although it does destroy the putrid odour of suppuration, yet it leaves behind a bituminous flavour which may not be pleasing to everyone." Add to all which, says another commentator, M. Bonnafont, this application prevents the free exit of the matter already formed. So there was an end of plaster of Paris and coal-tar. The firm had lost credit, and was declared bankrupt; and what usually happens in such cases happened in this: the working partner, after an unfortunate speculation, deserts his less active associate, and goes to try his fortune elsewhere; and the cause of coal-tar in this instance was espoused by M. Lebeuf, a distinguished chemist of Bayonne. M. Lebeuf, in 1850, had presented to the Academy of Sciences a memoir on the properties of saponine, in which he drew attention to a fact since overlooked in pharmacy—namely, that in the case of all those substances which are insoluble in water, but soluble in alcohol, saponine, if added to their alcoholic tincture, rendered them capable of subsequent suspension in water so as to form a stable and permanent emulsion. Saponine is, as all your readers doubtless know, a natural product obtainable from certain plants, possessing all the detergent qualities of artificially-prepared soap, with the additional advantage of being perfectly stable in its nature, and not liable to decomposition, as is soap, by solution in impure water. M. Le-

beuf, on reflecting over the fate which had befallen the patented compound of MM. Corne and Demeaux, bethought himself of saponine as a substitute for the discarded plaster of Paris, and prepared accordingly an emulsion of "coal-tar saponine" to supersede the obsolete mixture. M. Lebeuf, then, with laudable disinterestedness, placed both his formula and some hogsheads of the emulsion at the disposal of all the distinguished surgeons of the south of France and of Paris, and in M. Lémaire's *brochure* may be found details of the results obtained. The *resumé* seems to be perfectly impartial in its spirit, as testified by the record of one or two failures; the latter are, however, in very striking minority, and serve rather as an indication of good faith on the part of the writer, than as a depreciation of the merits of the remedy. M. Lemaire, in the course of his essay, propounds a theory regarding the formation of pus, which he states to be based upon observation and experiment, and which he trusts some day to be in a position to prove satisfactorily. Pus, he says, is a secretion separated from the liquor sanguinis, and also from mucus, by the agency of a special form of decomposition or fermentation; to the power possessed by coal-tar in arresting this fermentation he attributes its sanative effects. "The arrest," he says, "of the special decomposition is identical with the arrest of the purulent exudation." He also states that he does not despair of shortly producing pus in a test-tube, by favouring the special fermentation to which he traces its origin. M. Lemaire has been able, by the application of coal-tar to seeds, to arrest the process of germination, and has again, by the aid of an alkali, succeeded in reviving the process; whence he concludes that neither the purulent nor the germinative fermentation can resist the action of coal-tar. As an adjunct to therapeutics, the "coal-tar saponine" appears to possess all that the former preparation laid claim to, and something more,—namely, that of being a manageable application.

A boncsetter of Pontgouin, in the department of the Eure et Loire, has come to grief. Cited by a practitioner of the district, Dr. Curé by name, for illegal exercise of the medical profession, the *rebouteur* was condemned to five fines of ten francs each, and to the payment of an indemnity of 310 francs to our courageous *confrère*. Goupil, the culprit in question, appealed to the Imperial Court of Paris against this verdict, and has again been worsted, the Court having confirmed the first judgment with the addition of costs. Goupil will have to set a great many "little bones of the ankle" before this deficit in his year's receipts is made good.

The Minister of the "Marine," says the *Gazette des Hôpitaux*, was struck, whilst on a tour of inspection at Toulon, with the numerical insufficiency of the naval medical staff, and has determined upon augmenting this branch of the service. It is said that the naval section of the Budget of 1862 will contain an additional supplement of 145,000 francs for this purpose. More, however, remains to be done, for the pay of the naval surgeon in France is very insufficient, being a third less than that of a similar grade in the army.

The weather continues mild and healthy. M. Nélaton went over, as I understand, during the week (on Wednesday I think) to London, in order to be present at an operation for ovarian excision, to be performed by Mr. Baker Brown.

Paris, November 26th, 1861.

THE PITTARD FUND.

THE following contributions have been received, in addition to those already acknowledged:—

The Medical Benevolent Fund	£20	0	0
John Dobie, Esq., R.N.	5	5	0
Messrs. Newbery & Sons, St. Paul's-churchyard	1	1	0

Erratum.—In the list of subscriptions published in THE LANCET of last week, *for* George C. Steet, Esq., F.R.C.S., £5, *read* J. T. King, Esq., Highbury-crescent, £5.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on the 21st inst.:—

Crowther, James Edward, Halifax.
Rush, William Arthur, Southminster, Essex.

The following gentlemen also on the same day passed their first examination:—

Forrest, John, King's College.
Shea, Henry Gordon, London.

As an Assistant:—

Roberts, Thomas Andrew, London.

Medical News.

ST. BARTHOLOMEW'S HOSPITAL.—On Saturday, the enlargement of this hospital was completed. The frontage of the building now covers the entire south side of West Smithfield, extending from Giltspur-street to Duke-street. An entirely new surgery and operation-room, with all the modern improvements of light and ventilation, are added to the hospital, and patients requiring to undergo operations will now be carried direct into the surgery.

THE ROYAL SOCIETY.—The Copley medal, in the gift of the Royal Society, has been awarded by the Council to the celebrated Agassiz, thus setting the seal to the opinion which has so long prevailed of the merits of the distinguished professor. It is to be regretted that the date at which the Council necessarily make their decision does not afford time for him to be present to receive the medal in person at the anniversary meeting of the Society on St. Andrew's day. One of the Royal medals has been awarded to Dr. Carpenter, F.R.S., for his researches on the foraminifera, into the structure of shell, and the embryonic development of purpura, besides his other works on Physiology and Comparative Anatomy. The other Royal medal is awarded to Professor J. J. Sylvester, F.R.S., of the Royal Military Academy, Woolwich, for his important contributions to mathematical science. Papers by each of the two last-named gentlemen have appeared in the "Philosophical Transactions."

CHEMICAL SOCIETY.—At a meeting on the 21st inst., Dr. Hofmann in the chair, Peter M'Owan, Esq., was elected a Fellow. Dr. Thudichum read a paper on "Leucic Acid and some of its Salts." The acid was made by heating leucine with nitrous acid gas, and exhausting the product with ether. Its formula was determined to be C_{12} H_{12} O_8. Dr. Bence Jones read a paper on the "Occurrence of Crystalline Deposits of Phosphate of Lime in Human Urine." When chloride of calcium is added to common phosphate of soda solution, the precipitate is amorphous, and consists of 3 Ca O, PO_5; but when added to phosphate of soda rendered slightly acid with acetic acid, the precipitate is crystalline, and consists of 2 Ca O, HO, PO_5. Crystalline phosphate of lime may be deposited from healthy urine out of the body, by adding chloride of calcium to it, or by diminishing its acidity, or by employing both means conjointly. Crystals of phosphate of lime also appear in the urine after the administration of lime salts, and particularly of acetate of lime. Under any circumstances, the formation of phosphate of lime crystals in urine depends upon the amount of lime in the urine, and upon the degree of its acidity. Mr. E. S. Mills read a paper on "Sparteine," the volatile oily base obtained by Stenhouse from *spartium scoparium*. 150 lb. of the plant yielded 22 cubic centimetres of sparteine. It was shown to be a diammonic base, having the formula C_{30} H_{26} N_2.

DR. LIVINGSTONE has purchased some land for a mission at Chibisi, below the Cataracts.

DEATH OF DR. WILLIAM SHEARMAN.—This venerable physician died on the 21st inst., at the advanced age of ninety-five. He obtained his degree at Edinburgh in 1807, and was elected a Licentiate of the College of Physicians in the following year. He practised for many years in Northampton-square, Clerkenwell, but subsequently removed to Canonbury Villas, Islington, where he died. Dr. Shearman was quite one of the old school of physicians, and set his face strongly against the "new-fangled doctrines" of modern times. He was associated at one period of his life with a medical periodical, which was discontinued many years since. For several years he filled the office of treasurer to the Medical Society of London; and though he seldom spoke at the meetings, yet when he did his remarks were characterized by sound sense and practical value. He was somewhat reserved in his manner, and possessed a cold exterior; but he was a benevolent and highly honourable man, and distinguished by his sound and elegant scholarship. For many years he was physician to the Dispensary in Villiers-street, and to its successor, the Charing-cross Hospital. As a mark of sincere respect to the memory of their amiable colleague, the lecturers and teachers at the Charing-cross Hospital closed their lectures and courses of instruction at the Medical College of that institution during the day of Dr. Shearman's funeral on Friday, the 29th inst.

HEALTH OF LONDON DURING THE WEEK ENDING SATURDAY, NOV. 23RD.—The mortality of London, which has been rising since the beginning of the present month, exhibits a very considerable increase for the week that ended last

Saturday. The deaths were 1251 in the first week of November, 1288 in the second, and last week they were 1434. The mortality shown by the present return is rather higher than it would have been if a rate equal to the average obtained from the returns of corresponding weeks in 1851–60 had prevailed. The deaths at sixty years of age and upwards were returned in the last three weeks in the following numbers—217, 235, 271. From bronchitis the deaths at all ages were in the same periods 87, 131, 170; from pneumonia, 89, 82, 104; from phthisis, 159, 154, 175. Last week the deaths from scarlatina were 117, and from diphtheria 27. There were 5 deaths from typhus in the Green sub-district of Bethnal-green.

The births registered in London were—boys, 939; girls, 914.

MEDICAL VACANCIES.

THE office of Physician to her Majesty's Household has become vacant by the death of Sir John Forbes, M.D.

A Resident Dispenser and Assistant to the Western General Dispensary, Marylebone-road, is required.

There is a vacancy for a House-Surgeon and Apothecary to the Lincoln County Hospital, by the resignation of Mr. Thomas Thornley Brooke.

MEDICAL APPOINTMENTS.

DR. WENSLEY BOND JENNINGS has been elected Lecturer on Obstetric Medicine at the Richmond Hospital Medical School, Dublin, in the room of Dr. Denham, who has been appointed to the Mastership of the Rotunda Hospital, Dublin.

Messrs. Charles Hayes Marriott and Charles Richard Crossley have been elected Surgeons to the Leicester Infirmary and Fever House, in the room of Mr. Thomas Macaulay, deceased, and Mr. Thomas Paget, resigned; and Mr. Frederick John Rogers, of St. Mary's Hospital, has been elected House-Surgeon, in the room of Mr. Marriott.

Messrs. William Date, E. W. Machin, and Joseph Niven, have been appointed Resident Surgeons to the Birmingham and Midland Counties Lying-in-Hospital and Dispensary for the Diseases of Women and Children, vice Messrs. H. Turner, E. Iliffe, and R. S. Wallis.

Dr. Robert Mayne has been appointed Physician to the Adelaide Hospital, Dublin.

Dr. Henry Lynch has been elected Medical Officer and Public Vaccinator for the Dawlish District of the Newton-Abbot Union, Devonshire, vice Mr. Edwin Thomas Edwards, resigned.

Mr. Clement S. Barter has been appointed Resident Physician's-Assistant and Apothecary to the Bath United Hospital, vacant by the resignation of Mr. David Michael.

Mr. Robert Cremer has been appointed Medical Officer for District No. 6 of the Norwich Union, in the place of Mr. William Bransley Francis; and the latter gentleman has been appointed to the District (No. 8) lately held by Mr. Crickmay, resigned.

Mr. Charles Elliott has been appointed Senior Assistant-Accoucheur to Steevens's Hospital, Dublin.

Mr. Frederick Bullin has been elected Dentist to the Chester Infirmary, in the place of Mr. Snape.

Dr. Humphrey Minchin has been elected by the Grand Jury of the County of the City of Dublin, Surgeon to the Dublin City Prisons, in the room of Mr. Alex. Read, resigned. The right of the Grand Jury to do so is, however, disputed by the Corporation of the City of Dublin, and by the Board of Superintendence of the City of Dublin Prisons.

MILITARY AND NAVAL MEDICAL INTELLIGENCE.

Commissions signed by Lords-Lieutenant.—1st Newcastle-upon-Tyne Volunteer Artillery: Assist.-Surg. John Archer Dawson, to be Surgeon. 1st West Riding of Yorkshire Engineer Volunteers: Herbert John Welker, Gent., to be Assist.-Surg. 1st Middlesex Engineer Volunteer Corps: Thomas Dickinson, to be Assist.-Surg. West Middlesex Rifle Volunteer Corps: The Queen has been pleased to accept the resignation of the Commission held in this Corps by Assist.-Surg. Edwin Andrew. 10th Cumberland Rifle Volunteer Corps: James Symes, to be Hon. Assist.-Surg. Prince of Wales's Royal Regiment of Renfrew Militia: Assist.-Surg. James Hutchinson, to be Surg., vice Gompertz, resigned. 9th Fifeshire Rifle Volunteer Corps: Robert Peters, to be Hon. Assist.-Surg. 3rd Anglesey Artillery Volunteer Corps: William Williams, M.D., to be Hon. Assist.-Surg. Lancashire Rifle Volunteers: Her Majesty has been pleased to accept the resignation of the Commission held in the 4th Manchester, or 78th Lancashire Rifle Volunteer Corps, by Surg. J. Thorburn.

Surg. William E. O'Brien and Acting Assist.-Surg. Mark Anthony Harte, to the *Satellite*; Acting Assist.-Surg. John B. Nicoll, to the *Swallow*.

Births, Marriages, and Deaths.

BIRTHS.

On the 19th inst., at Maidenhead, the wife of Alfred Payne, M.D., of a daughter.

On the 21st inst., at Lower-bank, Over-Darwen, Lancashire, the wife of S. H. Wraith, Esq., F.R.C.S., of a daughter.

On the 24th inst., at Warwick-street, Regent-street, the wife of George F. Keys, Esq., M.R.C.S., of a daughter.

On the 25th inst., at Newent, Gloucestershire, the wife of W. D. Cattle, Esq., M.R.C.S., of a son.

On the 26th inst., at Campden-hill Villas, Kensington, the wife of James Webster, M.D., of a daughter.

MARRIAGES.

On the 27th of Sept., at Archangle, William, eldest son of William Clifton, of Archangel, to Ellen, third daughter of G. W. H. Coward, L.R.C.P., of the New North-road, Hoxton, and Yew-villa, Cheshunt, Herts.

On the 5th ult., at St. Paul's Church, Landour, John Wilson, Esq., Assistant-Surgeon 13th Bengal Cavalry (late 4th Sikh Cavalry), to Harriet Fraser, second daughter of Colonel M. Smith, commanding H.M.'s 81st Regiment.

On the 19th inst., at St. Marylebone Church, Wm. Steer Riding, M.D., of Euston-square, to Mimi, only daughter of Edward James, Esq., Q.C., of Upper Wimpole-street.

DEATHS.

On the 19th of Aug., at Picton, New Zealand, Helen Elizabeth, the wife of James Kilgour, M.D.

On the 17th inst., on board the Peninsular and Oriental Steamer *Ceylon*, on his passage home from India, Surgeon-Major John Middlemass, H.M.'s Madras Army.

On the 23rd inst., at Sandwich, Henry Pettman, Esq., M.R.C.S., aged 65.

On the 24th inst., at Letham, Fifeshire, William Spence, M.D., formerly Surgeon H.E.I.Co.'s Service, and for some time in the Household of the Pacha of Egypt.

On the 24th inst., at St. Leonard's-on-Sea, Anna Matilda, wife of Albert De Mierre, M.D., aged 53.

Medical Diary of the Week.

MONDAY, DEC. 2

- ROYAL FREE HOSPITAL.—Operations, 2 P.M.
- METROPOLITAN FREE HOSPITAL. — Operations, 2 P.M.
- EPIDEMIOLOGICAL SOCIETY.—8 P.M. Dr. A. Smith, "On the Yellow Fever of the Peruvian Andes."
- ODONTOLOGICAL SOCIETY OF LONDON.—8 P.M.
- MEDICAL SOCIETY OF LONDON.—8½ P.M. Lettsomian Lectures. Lect. III.: Dr. F. W. Mackenzie, "On the Application of Pathological and Physiological Inferences to the Prevention and Cure of Phlegmasia Dolens."

TUESDAY, DEC. 3

- GUY'S HOSPITAL.—Operations, 1½ P.M.
- WESTMINSTER HOSPITAL.—Operations, 2 P.M.
- ETHNOLOGICAL SOCIETY.—8 P.M. The Right Rev. the Bishop of Labuan, "On the Dyaks or Aborigines of Borneo."—Mr. E. B. Tylor, "On the Language of the Western part of North America."
- PATHOLOGICAL SOCIETY OF LONDON.—8 P.M.

WEDNESDAY, DEC. 4

- MIDDLESEX HOSPITAL.—Operations, 1 P.M.
- ST. MARY'S HOSPITAL.—Operations, 1 P.M.
- UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M.
- ROYAL ORTHOPÆDIC HOSPITAL. — Operations, 2 P.M.
- OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Mr. Robert Ellis, "On Cauterization by Electric Heat in the Treatment of certain Diseases of Women." — Dr. Hanks' "Case of United Children;" &c.
- GEOLOGICAL SOCIETY OF LONDON.—8 P.M.

THURSDAY, DEC. 5

- ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
- CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 1 P.M.
- LONDON HOSPITAL.—Operations, 1½ P.M.
- GREAT NORTHERN HOSPITAL, KING'S CROSS.—Operations, 2 P.M.
- LONDON SURGICAL HOME.—Operations, 2 P.M.
- CHEMICAL SOCIETY.—8 P.M. Dr. Oppenheim, "On the Camphor of Peppermint."—Mr. G. C. Foster, "On Piperic and Hydropiperic Acids." — Prof. Bolley, "On some Physical Properties of Tin-Lead Alloys."
- HARVEIAN SOCIETY.—8 P.M.

FRIDAY, DEC. 6

- WESTMINSTER OPHTHALMIC HOSPITAL. — Operations, 1½ P.M.
- WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON. — 8 P.M. Dr. Fincham, "On a Case of Empyema in which the Operation of Paracentesis Thoracis was performed, followed by the Insertion of a 'Drainage-Tube.'"

SATURDAY, DEC. 7

- ST. THOMAS'S HOSPITAL.—Operations, 1 P.M.
- ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
- KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
- CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

To Correspondents.

Obstetricus.—The case alluded to by our correspondent by no means stands alone. In a recent number of the *Dublin Hospital Gazette*, Dr. Wilson has related a case of early maternity, in which conception must have taken place when the mother was twelve years and nine months old. The father was nineteen years of age. In Mr. Roberton's case, the girl became pregnant in the eleventh year of her age.

Query.—Benzoin has been recommended as an external application in the treatment of scabies.

R. B. is not quite right. Dr. Godefroy, in the *Gazette des Hôpitaux*, compares the practice of the three countries in reference to the Cæsarean section as follows:—"The Germans, who operate very early, save many women. The French, who temporize more, save a smaller number. The English, who never operate but in the last extremity, lose almost all."

Opinion.—The case is stated so imperfectly, that it is impossible to form an opinion respecting it.

Bristoliensis.—They are contained in the volumes for 1833-34.

IDENTITY OF THE PARASITIC FUNGI.

To the Editor of THE LANCET.

SIR,—My attention has been attracted by a letter in the last number of your journal by Dr. William Tilbury Fox, which professes to criticize Dr. M'Call Anderson's recent work on "Parasitic Affections of the Skin." As Dr. Fox has obviously never read the book, and his letter might induce unsuspicious people to believe that he had done so, I think it only fair to Dr. Anderson and the profession generally to reply to his insinuations.

Dr. Fox asserts "that Bazin's view (that herpes circinatus, herpes or tinea tonsurans, and sycosis are but varieties of one affection) has been adopted without acknowledgment." Now, in common justice to Dr. Anderson, I request your permission to introduce the following short quotation from his work at page 51:—

"These (varieties) are divided into three stages by Bazin, a surgeon whose labours have done far more than those of any other to elucidate the nature and treatment of this previously complicated disease; who was the first to describe herpes circinatus, herpes tonsurans, and sycosis *as varieties of the same affection*; and from whom I draw largely in these remarks."

This language surely is distinct enough; besides which, in the course of page 46, Dr. Anderson acknowledges Bazin's discovery *no less than three several times*; and he has, moreover, dedicated his work to M. Bazin in terms expressive of his esteem and admiration; so that I am sure, from what I know personally of that illustrious dermatologist, that he would be amongst the first to defend "his former grateful pupil" against the unjust and ignorant accusation of which he has been made the victim.

That there is little new in Dr. Anderson's book does not prevent its being a good one, because there is unquestionably a great deal that is new to the literature of this country, and it will as unquestionably supply a want that has been widely felt by the profession. The profession, indeed, appears so far to have received it with favour, which it probably would not have done had Dr. Anderson involved himself in the scientific disputes suggested by Mr. Berkeley and Dr. Lowe. Dr. Anderson has acknowledged Hebra's view, that the parasitic affections are probably "all produced by one and the same fungous growth, and that the various affections so produced are owing to the quantity of the parasite deposited, to its stage of development, and to the particular structure of the skin attacked." But he dismisses the subject, and in a practical work, in the present state of the question, rightly dismisses it, as one "that has not yet been thoroughly investigated," and which is besides "of more scientific than practical value." So far as *clinical observation* goes, favus, tinea tonsurans (in Dr. Anderson's sense), and pityriasis versicolor are well distinguished. I myself would have no difficulty in pronouncing my diagnosis in any well-marked case from microscopical appearances alone. Dr. Fox's composite cases, or rather assertions, are extremely inconclusive, and might, by the most charitable judges, be classed with Hebra's as coincidences; for coincidences in these cases seem probable enough, as the soil favourable to one parasite growth is not unlikely to afford the requisite advantages to another. As for Dr. Lowe's papers, I am of opinion that any practical physician perusing them must rise extremely sceptical as to the author's powers of diagnosis. Thus he writes:—

"During the time that I was experimenting with favus crusta, a member of my own family was attacked with favus. There was only one spot of the disease, but this was a most perfect specimen. To this I applied strong sulphuric acid, and subsequently tincture of iodine. The result was that in two or three days I had a complete case of tinea tonsurans, which lasted about ten days longer. At the same time that this case occurred I was myself affected with herpes circinatus."

It is very strange, too, to hear about a patient in charge of some cows, who, "on admission, was almost covered with eruption, presenting a most singular medley of skin diseases, from lichen to herpes, in almost every form, and, where any source of irritation existed, ending in ecthyma and lupus"!

Altogether I think the verdict of the profession will be that Dr. Anderson has done well in not complicating a useful practical treatise with anything beyond the acknowledgment of the existence of this controverted question.

If I might presume to give Dr. Fox a word of advice, it would be to read carefully the two works he has referred to in his letter. As to Dr. Anderson's, he would perhaps find that he was in part mistaken; and from M. Bazin he might get a hint about the distinction that ought to be drawn in language between a *disease* and an *affection*. Such a sentence as "that the affection of the hair must be considered as the true parasitic disease" is inexcusably incorrect. Dr. Anderson is found fault with for failing to touch on the question of "Which is the real parasitic disease? Is it that of the hairs, or epithelium, or an eruptive one?" The schoolmaster does not seem to be abroad amongst some dermatologists.

Having trespassed far enough upon your space, I would merely remark, in conclusion, that as the purely scientific evidence in favour of the identity of the parasites in favus, tinea tonsurans, and pityriasis versicolor is unsatisfactory, and as the clinical evidence, as well as the opinion of nearly all great dermatologists except Hebra, is decidedly against it, Dr. Anderson has done right, in a practical work, in adhering to the theory in which he himself believes, especially as it seems also the most probable; and further, that Dr. Fox having voluntarily come forward to criticize Dr. Anderson's work, and the only evidence adduced by him to show that he knows anything of it betraying in the most unequivocal manner his ignorance of its contents, I have thought it right to expose his statements at some length, to obviate any slightly prejudicial effect they might otherwise have had. Enclosing my card,

I remain, Sir, your obedient servant,

Glasgow, November, 1861. VERITAS.

J. S., (Bath.)—The wafers are said to contain morphia, and cannot with safety be employed indiscriminately.

Malcolm.—The subject will eventually be treated fully in its general aspects. The hint given will not be forgotten.

Patiens.—By selection and subsequent ballot.

L.M.R.C.S. Eng.—There is some cogency in the objections raised; but it is impracticable to legislate effectively on the subject.

X. Y. Z.—1. The new-comer should call.—2. It is better avoided.

Dorchester.—It would have been well if the candidates for the office of surgeon to the County Hospital had been somewhat more modest in their appeals to the governors. It is very difficult, however, to draw a line. Anonymous puffs are clearly beyond tolerance.

Mr. Metcalfe Johnson.—The articles will be published.

If A Young Man will send his name and address, the stamps shall be returned, and the information he requires given to him privately.

Nemo.—By application to the Secretary of State for the Colonies.

OXALATE OF CERIUM IN PREGNANCY.

To the Editor of THE LANCET.

SIR,—If you think the following case of any interest to your readers, please insert it:—

Mrs. J——, aged twenty-six, the mother of one child, of very anæmic appearance, has been out of health for the last fourteen months, during which time she has miscarried twice; on the last occasion had much hæmorrhage. On October 22nd she applied for medical treatment. When I visited her I found her suffering from pain in and about the right ovary; but her pulse did not seem to indicate that it was of an inflammatory character, neither was the pain much increased on pressure over the affected part. The next day, however, a most marked change had taken place, as could be seen at once in her face. Pulse 160, thready; great pain over the right iliac and hypogastric regions, which became intense on pressure, with other symptoms of peritonitis. Her case was rendered the more distressing by her continuous retching. Everything taken into the stomach, however small in quantity, was instantly rejected; the effervescing mixture with prussic acid, ice with the fluids given, increased rather than checked it. I thought I would try the effect of oxalate of cerium, so highly esteemed by Dr. Simpson, of Edinburgh, for the sickness of pregnancy. I ordered her three-grain doses every two hours, to be placed on the tongue dry, with a small piece of ice to assist in swallowing each powder. All vomiting ceased after the second or third dose, and she was now able to retain the brandy and eggs, which were before rejected. All irritability of stomach having subsided, I ordered her twenty minims of Battley's sedative solution every three hours, and after being under its influence thirty-six hours, she rapidly recovered, and was up in a fortnight.

I send this case more in reference to the oxalate of cerium here exhibited. I read in your last impression an inquiry as to the success of this remedy in the sickness of pregnancy. I know it to have been very useful in several cases; dose, three grains every three hours. In two cases, however, it failed.

I am, Sir, yours truly,

Grange-road, Bermondsey, Nov. 1861. ALBERT LLOYD, M.R.C.S.

To the Editor of THE LANCET.

SIR,—Your correspondent, "Far West," asks a question concerning the oxalate of cerium in pregnancy. I have used it in six cases lately, where sickness and retching were most urgent in pregnancy. I cannot say that I am at all satisfied with the results. It is true three of the cases were relieved by it; but in order effectually to stay the urgent vomiting, I was obliged to have recourse to my favourite drug (pepsine), in ten-grain doses. I gave the oxalate of cerium in tragacanth powder, two to three grains for a dose three times a day. Your correspondent will find a valuable paper upon the oxalate in "Braithwaite's Retrospect," vol. xl., p. 241, by Dr. Simpson, of Edinburgh.

I remain, Sir, yours, &c.,

Guisbro', Yorkshire, Nov. 1861. GEO. SELWYN MORRIS, M.R.C.S.

A Schoolmistress, (North Britain.)—It is quite possible the most serious results may follow from the absurd practice. We had hoped it was greatly declining; but it would appear that it still prevails. A correspondent in a recent American paper gives the following vivid illustration of its direful effects:—

"At the Hôtel Dieu, the great hospital at Paris, a young girl of eighteen lately presented herself to M. Broschet for his advice. On the right side of her throat she had a tumour of variable size, but never bigger than one's fist. It reached from the collar-bone as high as the thyroid cartilage (called in common language, Adam's apple); when pressed downwards it wholly disappears, but returns as soon as the pressure is removed; it is indolent, soft, and elastic. It is observed to be largest when the chest is tightly laced in corsets. In short, by placing the ear on it, the murmur of respiration can be heard in the tumour, which proves that a protrusion of the lungs has taken place; or, in other words, that this poor girl has been laced so tightly that her lungs, having no longer sufficient space in their natural situation, are squeezed out of it, and are forcing their way up along her neck."

Forceps.—Chamberlens' forceps are now in the possession of the Royal Medical and Chirurgical Society. No doubt any member of the Council would give an order for their inspection.

Dr. M'Cormac.—The letter shall be inserted next week.

ERRATUM.—In a letter headed "Podophyllin," published in our last number, page 514, two little inaccuracies occur. The last word in the first paragraph should read "effects," not "defects;" and in the third line of the second paragraph, the word "no" should be inserted before "fœtor of breath," &c.

COMMUNICATIONS, LETTERS, &c., have been received from — Mr. Hilton; Dr. Brown-Séquard; Dr. Brinton; Dr. Ormerod, Brighton; Mr. George, Kensington; Mr. Geo. Selwyn Morris, Guisbro'; Dr. Macleod; Mr. Kesteven, Upper Holloway; Professor Owen; Mr. Lee; Mr. Nourse, Brighton; Mr. Davis; Dr. W. Budd; Dr. M'Cormac; Mr. J. Boyd, Brynmawr, (with enclosure;) Dr. Herapath, Bristol; Mr. J. Johnson, Brighton, (with enclosure;) Mr. C. L. Cunningham, Brighton; Mr. Allan, Dingwall; Mr. J. Witchell, Kenfig Hill, (with enclosure;) Dr. Lowe, King's Lynn; Mr. J. Watkin, Aberdare; Mr. C. Broughton, West Houghton; Mr. Hunter, Aberdeen, (with enclosure;) Mr. Younie, Edinburgh, (with enclosure;) Mr. Archer, Feltwell; Mr. Turner, Brighton, (with enclosure;) Mr. Turnbull, Liverpool, (with enclosure;) Dr. Duncan, Tunbridge Wells; Messrs. Henley and Strong, Croydon, (with enclosure;) Dr. Chamberlaine, (with enclosure;) Mr. Lister, Penkridge; Dr. J. Jones; Dr. O'Connor, Harleston; Ethnological Society; Cliftonville; Chemical Society; Sigma; Medical Society of London; W. C.; Veritas; M.R.C.S. Eng.; Obstetrical Society; Malcolm; Harveian Society; J. S., Bath; A Subscriber; M.R.C.S.; &c. &c.